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The cover captures University President Benno C. Schmidt Jr. and medical school Dean Leon E. Rosenberg as they walk along College Street after the dean's address to the 1988 Graduate and Professional Student Assembly. Photo: Michael Marsland

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The magazine is produced by the Office of Public Information: Helaine Patterson, director; Gregory R. Huth, publications editor; Leah D'Eugenio, staff assistant; and Claire Bessinger, senior administrative assistant. The triannual magazine is prepared in cooperation with the Alumni and Development offices at the School of Medicine. Layout and production: Chave Design.

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EDITOR'S NOTE

YALE MEDICINE, the alumni bulletin of the School of Medicine: What is it, what should it be, and how should we get there? Who are our readers, what do they want and how can we meet their needs? As editor of YALE MEDICINE, I must try to answer these questions. Some of the answers are straightforward. YALE MEDICINE is the alumni bulletin of the School of Medicine, and as such needs to be part of the dialogue between the alumni and the school. Our readers, however, comprise not only the school's graduates, but its faculty, students and friends, as well. We try to meet the needs of this broad audience by presenting news and features about the medical school's programs, the accomplishments of its faculty and the progress of its students.

Our goal is to make each issue of YALE MEDICINE "a visit to the medical school" so our readers can learn what is happening in the school's classrooms, its laboratories and on the wards of its affiliated hospitals. To this end, during the last year we have presented articles about student research and student aid. We have showcased medical school departments, and have included features written by alumni and faculty. Finally, we have presented news about what Yale medical students and graduates are doing in the world of medicine and in other aspects of their lives.

The challenging question is how to accomplish our task in a lively and interesting manner. Our staff strives to present this material in a format that is inviting, and yet consistent with the traditions and heritage of the School of Medicine. In this spirit, we have introduced "Gallery," which features works from the extensive collections of the Yale Medical Historical Library. We also are using more photographs, and with the Fall/Winter 1988-89 issue, we bring a new logo to the cover and an easier-to-read layout to the table of contents and to other sections of the magazine.

YALE MEDICINE will also introduce two ways to enhance the magazine's role in fostering communication, both among Yale medical graduates and between them and their alma mater. First, every issue of the bulletin will feature an article written by an alumna or alumnus. These features, 2,500 to 3,000 words long, will highlight the writer's experiences in—or opinions about—medicine or medical education. Readers who wish to submit such an article should first query the editor by letter.

Second, we invite letters to the editor for publication. We encourage readers to express their thoughts about our magazine, the medical school or about the many challenges that face medicine today. The editors reserve to right to select letters to be published and to edit them according to the space available.

We hope that our readers will be well served by these changes and will use YALE MEDICINE as a means to continue an active relationship with the School of Medicine. We look forward to hearing from you.

Dr. Michael Kashgarian '58 Editor



TO CURE OCCASIONALLY, TO RELIEVE OFTEN, TO COMFORT ALWAYS



The Class of 1988 enjoys its special day. (Photos by Bill Carter.)

by Angela R. Holder, LL.M.

Thank you very much for inviting me to be your speaker. Since I am the only person who has taught you who barely knows the difference between a molecule and a microbe, I'm very touched and flattered that you asked me. All of you are so very bright, so interesting as students and as friends and so interested in the world around you that it has been a particular pleasure to introduce you to some new ideas and new viewpoints.

When I started thinking about what I wanted to say today, I asked several friends what they remembered as being good, bad or indifferent about the speeches at their own commencements. Not one could tell me who spoke, much less what was said at their own college and law or medical school graduations. One hundred percent of my sample just remembers wishing the speaker would shut up so they could get on with what they came for. I will bear that thought in mind.

Authority of Wisdom

When I have met with you before, I was a lawyer who was your teacher, and we talked about informed consent, patients' rights, issues in ethics and issues in malpractice. When I talk to you today, I'm still a lawyer. In doctor-patient interactions, I'm still a patient. But now I'm your professional colleague.

All three of these relationships are affected by something you have acquired today—the medical degree that gives you new authority. The way you manage that authority will determine whether you practice well or badly, whether your patients like you or don't, and whether you are admired or get sued. So I'd like to talk about your new authority and how it will affect your patients and other people who share the world with you.

The practice of law and the practice of medicine are far more alike than they are different. Members of these two



Amy Justice and Joseph King were married soon before graduation.

professions have extraordinary authority and control over other peoples' lives. That's what Hippocrates and Maimonides were talking about and it's still true. What you will do and say will matter to other people, who will do what you tell them to do simply because you are a physician. Most of them will not bother to investigate whether you, personally, have any sense whatever.

The best advice I can give you is to remember that you are people, just like the people you will take care of. Teach them and talk to them as a person, not as an authority figure. If you know what you're doing, you do not have to be authoritarian anyway. Expertise carries its own quiet authority, and you don't have to advertise it. One of the first lessons you will learn out there is that anybody who gratuitously tells you that he or she is an expert on something probably is not.

The word "doctor" comes from the past participle of the Latin verb *docere*, which means "to teach." Being a teacher is one of life's great privileges. Whether you will spend your lives instructing students or talking to patients, all of you will be teachers. Each of you has almost always so far been a "teachee," not a teacher, so you may not have given much thought to teaching. Knowing that you have helped someone have a useful new idea is one of life's real excitements.

The first rule of being a good teacher is to remember that no one ever learned anything important while being intimidated. It is possible to coerce rote memorization. It is never possible to coerce understanding. To teach a student or to teach a patient, you have to start where they are, not where you wish they were. You begin by making sure they understand that it's all right if they don't already know what you are explaining.

You have learned a great deal about the molecules that form a human body. You know about the mechanisms that occur when the body is diseased. But as a doctor you will affect people's lives. You will use the highest technology medicine can provide. Just don't forget that all the machinery is a means, not an end.

Don't hide behind technology or its language when you talk to patients and families. Talk to your patients the way you hope people will talk to you when you need help about something you don't understand. If you forget what it's like not to understand something important, spend a couple of hours twice a year reading the Internal Revenue Code. It should induce enough humility to bring you back to reality about comprehension.

Care Packages

Don't forget that you will be taking care of patients. You will not be delivering health care. Every time I hear somebody talk about health care delivery, I have to suppress the urge to order 4 1/2 pounds of it to be delivered next Tuesday. I visualize it stacked in cardboard cartons on the back of a pickup truck. The health care delivery system is the whole fleet of pickup trucks.

Your authority will allow you to be there at the best moments of people's lives and at the worst. What you say and how you behave will make a lot more difference to them on either occasion than what you know. They will want to reach out to a human being, not to a technocrat.



Angela R. Holder is counsel for medicolegal affairs at the School of Medicine and Yale-New Haven Hospital, and clinical professor of pediatrics (law). She delivered this address at the School of Medicine's graduation ceremony on May 30, 1988.

You will be dealing with people who happen to be sick. You will not be dealing with diseases. If what really turns you on is diseases, not the people who have them, you should have become a tree surgeon. From the perspective of your future patients, let me just say that on the day that I die, I want somebody taking care of me who will be more interested in sitting there holding my hand than in making sure that I go out with my electrolytes in perfect balance.

Most people were perfectly capable of managing their lives before they met you and are perfectly capable of doing it now while they are sick. Do not underestimate your patients' capacities for understanding the things that really matter to them. If they can't understand what you are talking about, the problem may be your inability to communicate, not their ability to comprehend. If you listen, you will find out how to talk to each patient in a way that he or she can understand. If the patient is giving the wrong answers, it may be that you are asking the wrong questions.

You will also learn that people with radically different lifestyles may be able to cope better than you can. You, not they, may be deficient in survival skills. Every winter I have a discussion with at least one psychiatry resident who is having problems with a street person. The street person is usually a bag lady who has come into the emergency room for treatment of some minor complaint. When interviewing her, the resident finds that she is perfectly well-oriented with no specific indication of mental illness, but she wants to gather up her belongings to go back on the street instead of happily accepting whatever middle-class housing arrangement has been proposed for her.



(From right) Kenneth Andrioni, Carlton Barnswell, Joi Barrett and Susan Baserga peruse their programs.

At this point, the resident concludes that she has to be crazy because she prefers the street, and the resident comes to my office to discuss commitment to a mental hospital. I point out that the bag lady is well-nourished, so she knows where to find food; she does not have frostbite, so she knows where to find shelter; she has not been murdered, and she knows where to come when she wants medical care.

The bag lady knows something we don't. If either the resident or I were set down in the New Haven Green with no money and told to forage, we would be dead of starvation or of something else in less than a week. Don't ever get so arrogant that you don't respect that sort of street smarts. Remember that not everybody wants to be rescued, but do keep alert for those who do. Wherever you practice, become familiar with the social resources that you can mobilize to help rescue those who do want it.



At left, Hedayatollah Zaghi introduces William B. Stewart, Ph.D., associate professor of surgery (gross anatomy) to a leading candidate for the Class of '14, while at right on page 5, Susan Valley displays her reward for four years of diligence.

I meant what I said in class when I taught you about informed consent. It is the patient's body, so it is the patient's choice. That, however, assumes a situation in which there is a choice. If I have a backache, it is a legitimate choice whether I have surgery or go home and lie on a board for a long time. As the patient, I want you to talk to me in detail about my alternatives in that situation. I want to make up my own mind about what I want to do.

Be careful, however, that you reserve such discussions for situations in which they are warranted. Do not trivialize something important in situations where it doesn't apply. If I come to the emergency room because I have cut an artery in my foot and I am gushing blood all over the floor, what I want to have is my foot sewed up. I don't want a lot of conversation while the puddle of blood gets bigger. If you cannot understand the difference between the cut foot and helping a patient decide what she wants to do about breast cancer, you will use the same amount of time and energy discussing both. That is unnecessary in the first instance and inadequate in the second.

As your parents tried to teach you, have nice manners. Respect your patient's idea, peculiar though you may find it, that his or her medical care may not be anybody else's business. Keep your mouth shut in hospital elevators and cafeterias. Above all, have good manners on the telephone. If you simply must call people at their offices or workplaces, be discreet about leaving messages. Not everybody in the world thinks it is anyone else's business to know about doctor's appointments, test results, or anything else.

From the patient's perspective, having a doctor call the office and leave the message that test results are negative is very different from having a mechanic call and leave the message that the car is ready. A patient may not want the rest of the world to know about even seeing the doctor. Either find out when the patient will be back, so you can talk directly, or leave your name and number but not your business. This principle is not arcane medical ethics; this is plain good manners.

A song from this year's second-year show says it better than I can. The song was called "The Sound of Sirens" and it was to the music of "Sound of Silence": "Physicians talking without listening, patients distant and untrusting." If you listen to your patients not only as a scientist but also as a concerned human being, and if your authority does not get in the way of the decency and humanness you have now, you will succeed as physicians.

The ancient French aphorism says a doctor's job is:

To cure occasionally, To relieve often, To comfort always.

After 700 years, that's still a useful goal for clinicians.

Not only should you try to avoid self-importance with patients, but you should also try not to get too carried away with your authority around the house and with your friends. It will be a long time before you will be too important to take out the garbage.

There is an old legal doctrine called "the captain of the ship." It means that the physician is responsible for everything that happens to the patient, regardless of who really did something wrong. This notion has fortunately, fallen out of favor in the courts, but it does present a metaphor for you today. Along with the families and friends who have nurtured and supported you and who are thankful to see this day, I hope all your ships sail smoothly into the future and that all of you are the sort of captains that we hope today you will be. Don't ever get so arrogant that you jump overboard to see if you can walk on water, because when doctors walk on water, the rest of us get wet. Most of all, have fun sailing. Goodbye and good luck. The world around you is going to be a better place because you're in it.

Thank you. YM



DERMATOLOGY COMES OF AGE



Glynis McKiernan, B.S.N., clinical coordinator, administers photopheresis therapy to a patient with cutaneous T-cell lymphoma. Because photopheresis involves treating a limited amount of the patient's blood outside her body, she is spared the most unpleasant side effects of whole body irradiation or conventional chemotherapy.

by John Dinolfo and Gregory R. Huth

There's a revolution going on in dermatology. The skin—for centuries virtually taken for granted as the human body's "container" and a passive target for disease—has revealed itself as an integral, active part of the immune system. The body's largest and most accessible organ, the skin in recent years has provided a dramatic new frontier in the search for treatments of a wide variety of medical problems, from cancer to autoimmune diseases.

Yale physicians are at the forefront of these developments, pioneering such promising techniques as photopheresis, in which a patient's blood is treated with ultraviolet light to boost the body's immune defenses, and laser-induced fluorescence, in which doctors use concentrated light to assess skin damage painlessly and with far more accuracy than ever before.

Dr. Richard L. Edelson, dermatology chairman since 1986, lists other notable accomplishments of the department:

- advancing the treatment of vitiligo and other diseases of pigmentation
- deciphering the pathogenesis of and development of a new treatment for cutaneous T-cell lymphoma
- developing, with the section of plastic and reconstructive surgery, a life-saving skin grafting technique for burn patients
- isolating the hormone melatonin and identifying its structure

• pioneering the development of pigment cell transplants.

The department's vitality is reflected in other ways as well. Eleven new faculty members have been added during the past three years. This brings the full-time faculty to a total of 20 primary members, 14 physicians and six Ph.D.s, making the department among the largest of its kind in the country.

Moreover, dermatology at Yale is becoming an increasingly popular specialization for medical students seeking a career in either research or clinical medicine. Last summer, seven first-year students—the highest number ever—chose to begin research for their thesis in dermatology.

Dr. Edelson, who graduated from the School of Medicine in 1970, believes students are lured to dermatology—as he was during the chairmanship of Dr. Aaron B. Lerner—by the contagious enthusiasm of the department. "It is an environment in which people take their careers very seriously, but are having a good time doing it," he says.

Learning to Look

It is not only incipient skin specialists, however, who delve into epidermal science at the School of Medicine. Because the skin plays such an integral role in human health, the department strives to provide all Yale medical students with at

John Dinolfo is a freelance medical writer. Gregory R. Huth M.P.H '84 is publications editor at the School of Medicine Office of Public Information.



Cutaneous T-cell lymphoma (CTCL), the most common lymphoma among adults, is a malignancy that originates in the skin. Dr. Richard Edelson, professor and chairman of the dermatology department, is pursuing the theory that photopheresis therapy, which he helped pioneer, alters distinctive antigens on the malignant cells in such a way that they can be used to vaccinate the patient against the continued progression of the cancer. Thus the body's immune system mobilizes to destroy the diseased cells.

Of Blood, Light and Healing

Photopheresis—or extracorporeal photochemotherapy—is an exciting new treatment for advanced cutaneous T-cell lymphoma (CTCL). Patients who benefit most have advanced disease with total-body erythroderma, an intense, painful reddening of the skin.

On the morning of treatment, the patient ingests a dose of 8-methoxypsoralen (8-MOP), which is inactive until exposed to light. Two hours later, an IV line is inserted and a unit of the patient's blood is drawn. After centrifugation, plasma and white blood cells, combined with saline, pass through the photopheresis chamber, where the leukocytes are exposed to "ultraviolet A" (UVA) light for 2 1/2 hours. The irradiated white blood cells and plasma are then combined with red blood cells and returned to the patient.

The high intensity UVA exposure damages 10 to 15 percent of the body's malignant T-cells. Investigators speculate that the dying white blood cells trigger the immune system to attack the remaining cancerous T-cells, thus inducing self-vaccination. Irradiated malignant T-cells die within 3 to 5 days.

Photopheresis kills cancerous cells without exposing the patient's entire body to radiation, and thus does not produce the toxic side effects associated with total body irradiation or multi-agent chemotherapy.

In studying the mechanism underlying photopheresis, Dr. Richard Edelson's associate, Dr. Paul Khavari, learned that the drug, 8-MOP, when light-activated, alters molecules on the membrane of cells. Light-activated 8-MOP also interacts with the DNA of T-cells. This dual immunologic intervention may explain, in part, how photopheresis helps manage CTCL. Approximately 40 patients will be treated in 1989 at Yale's photopheresis lab, which is supervised by Dr. Peter W. Heald.

least a working knowledge of dermatology's basics.

The aim, notes Dr. Edelson, is to prepare future doctors—especially those going into internal medicine, pediatrics or surgery—to evaluate the skin accurately within the first three minutes of a physical exam in order to make an accurate diagnosis, and if necessary, a prompt referral.

"We don't consider it possible to be an outstanding physician unless you know how to look at the skin," Dr. Edelson observes.

Teaching Yale medical students how to view the skin through a physician's eyes can involve course work over four years:

- First-year students attend two major lectures on important skin diseases. The lectures emphasize science as seen from the clinician's point of view. Students also attend a lab and an accompanying open house, during which time they meet the dermatology faculty.
- Second-year students, as part of their physical diagnosis course, accompany faculty members as they evaluate selected patients, both at medical school-affiliated hospitals and in the Yale Physicians Building. This course work is overseen by Dr. Irwin Braverman, professor and vice chairman of the department.
- Fourth-year students who are contemplating a career in dermatology may choose a three-week elective course under

the guidance of Dr. Leonard M. Milstone, associate professor.

The New Frontier

Clinical and educational activities are complemented by three areas of basic research that have helped the department establish an international reputation: 1) pigment cell biology; 2) the study of keratinocytes, the principal cell type in the epidermis; and 3) T-cell biology, specifically, the study of how normal and abnormal T-cells interact with the skin.

This third area of research has gained much recent international attention. For years physicians have noted that certain rashes or abnormal growths were symptomatic of cancer or autoimmune disease. In the 1980s medical scientists have discovered that when such diseases strike, the epidermis does not simply play the role of passive target to an immune system gone awry.

Dr. Edelson points out that quite to the contrary, "The skin makes prodigious quantities of molecules that play a central role in the functioning—or the malfunctioning—of the immune system."

In the early 1980s, Dr. Edelson and his colleagues found that the skin produces prodigious amounts of the thymic hormone thymopoietin, known to affect T-cell maturation. Another important molecule, interleukin-1, is required for the activation of T lymphocytes, and has been studied intensively

by Drs. Thomas Kupper, assistant professor, and Joseph McGuire Jr., professor. Recent studies have revealed that this molecule is made in larger quantities in the skin than perhaps by the rest of the entire body.

During the past 15 years, investigators determined that the tumors and rashes once considered to be symptoms of various skin diseases loosely grouped under the category of mycosis fungoides are really advanced and aggressive presentations of a disease caused by malignant T-cells. Dr. Edelson initially identified this disease as cutaneous T-cell lymphoma, or CTCL, the most common adult lymphoma.

In a series of complex experiments conducted by researchers at the NIH and various medical centers across the country, scientists also have learned that CTCL is a disease of helper T-cells. These malignant cells appear to localize and multiply in the skin, probably due to the presence of growth hormones such as those mentioned above, which are abundantly present in the epidermis.

These discoveries led investigators to conclude that the skin has immunologic functions that parallel those of the thymus. This was particularly surprising—T-cells were so named because scientists had assumed that the cells originated only in the thymus.

Dr. Richard Edelson was one of the leaders in this research. First at Columbia, and more recently at Yale, he and his colleagues pursued the clinical implications of the skin's immunologic structure and function.

For example, Dr. Edelson was intrigued by findings from animal studies which indicated that ultraviolet energy alters the immunologic function of T-cells. Among other things, this suggested that a white blood cell disease like CTCL might respond favorably to a light-activated drug known to interfere with the DNA of leukocytes.

Center Stage

By such a research route, photopheresis made its debut. This treatment uses extracorporeal ultraviolet radiation, coupled with nontoxic drug therapy, to stimulate the body's natural immune defenses against white blood cell diseases like CTCL. The resulting self-vaccination appears to impede, and in some cases arrest, the course of CTCL. This recalcitrant and often fatal lymphoma has an annual incidence of roughly 10,000.

With Dr. Edelson's arrival, Yale became the world's leading center for photopheresis. "Photopheresis is a prominent example of the bringing of new, basic science, particularly immunologic science, to the bedside," says Dr. Edelson, who developed the concept with scientists at Therakos, Inc., a division of Johnson & Johnson, Inc.

The U.S. Food and Drug Administration approved photopheresis last April for the treatment of advanced CTCL, soon after the first controlled study of the technique was reported in *The New England Journal of Medicine*. Dr. Edelson, his Yale collaborators Drs. Peter Heald and Maritza Perez, and his colleagues at various American and European centers reported their evaluation of photochemotherapy in 37 patients with advanced CTCL. Twenty-seven patients showed marked improvement following treatment, and the news about those respondents continues to be upbeat.

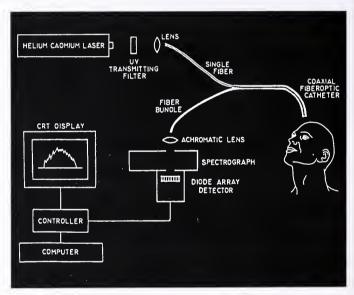
"Whereas we originally reported efficacy," explains Dr. Edelson, "we can now begin to make important statements about survival." He points out that 82 percent of the patients are still alive after an average of 42 months. "We have already surpassed the median anticipated survival by a year, which

How to Measure a Glowing Complexion

The patent-pending technique called laser-induced fluorescence uses ultraviolet light from a helium-cadmium laser to help assess skin damage done by the sun. As such, it is the first objective measurement of its kind. A fiberoptic probe, positioned about 3 mm from the patient's skin, registers the light waves emitted by elastin, and perhaps collagen, after exposure to the 2 mm low-power beam. A computer then assesses the intensity and wavelength of this light emitted from the skin.

Because damaged skin produces a light pattern that differs from that of healthy skin, laser-induced fluorescence may provide a simple, objective way to verify the extent and duration of photodamage to sun-exposed skin.

Thus, the technique may also assist in the early detection of melanoma and other skin diseases. Diagnostic lasers may also help to evaluate whether commercial products to retard aging do indeed reverse photodamage as their manufacturers claim.



A graphic representation of laser-induced skin flourescence: Yale researchers have applied for a patent for this new technique that measures sun damage to the skin.

becomes very statistically significant," Dr. Edelson notes.

Francis P. Gasparro, Ph.D., associate research scientist, is studying the interaction between the light-activated drug used with photopheresis, 8-methoxypsoralen, and CTCL. Meanwhile, Yale scientists are exploring other possible uses of photopheresis. Drs. Edelson, Heald and Perez of the dermatology department, and Drs. Joseph Craft and John Hardin of internal medicine, are evaluating the use of photopheresis in a common autoimmune disease of the skin and viscera, scleroderma.



In an examining room of the new Yale Physicians Building, Dr. David Leffell evaluates a candidate for Mohs surgery, in which the surgeon also serves as pathologist during the operation. This patient, a World War II veteran who sustained blistering sunburns while serving in the Pacific, recently developed a melanoma. Like President Reagan, he will undergo Mohs surgery to remove the lesion on his nose. The procedure is done on an outpatient basis, under local anesthetic.

Dr. Maritza Perez has used specially bred mice to demonstrate that an experimental process similar to photopheresis lowers the risk of skin graft rejection. She is now evaluating her findings to determine if they might extend to humans. And in collaboration with Dr. Stephen E. Malawista of the rheumatology division, the Yale dermatology team has even begun studying the use of photochemotherapy in rheumatoid arthritis.

The Cutting Edge

While light-activated drugs add a new dimension to the venerable tradition of dermatology, photopheresis is not the only dramatic development in treating skin disease at Yale. Recently, the medical school introduced dermatologic surgery to its clinical repertoire.

In the midst of last summer's heat wave, Dr. David J. Leffell returned to the medical school as its first full-time chief of dermatologic and laser surgery. Dr. Leffell, a Yale College alumnus and a McGill University Medical School graduate, arrived fresh from a fellowship in dermatologic surgery at the University of Michigan.

At Michigan, he learned Mohs micrographic surgery, a technique whereby a malignant skin tumor is meticulously removed in horizontal layers, then mapped to correspond with the exact location from which the tissue was removed. Mapping occurs by noting the anatomic site and color-coding tissue specimens with dye.

The Mohs surgeon analyzes the extirpated tissue to determine whether any tumor remains. In this way, a dermatologist is directed to the precise site to complete removal of the cancer.

"There are two benefits to this technique," notes Dr. Leffell. "When we're done, we know we've removed all

microscopic tumor, including the deep portion. At the same time, we only remove tissue that has to be removed."

In patients with recurrent or complicated skin cancers, for whom the procedure is indicated, Mohs surgery boasts a 95 percent success rate, far superior to more traditional surgical approaches. Because Mohs surgeons refer patients for adjunctive reconstructive procedures, Dr. Leffell expects to work closely with Yale's plastic surgeons and otolaryngologists.

In addition to Mohs surgery, Dr. Leffell brings some new technology to the medical school. He recently won the 1988 Young Investigator's Award of the American Society for Dermatologic Surgery for helping develop a technique called laser-induced skin fluorescence, which uses a low-power laser to diagnose the effects of photoaging on the skin.

Developed in cooperation with Dr. Lawrence M. Deckelbaum, assistant professor of medicine, laser-induced fluorescence employs a 2 mm beam about as powerful as a supermarket checkout laser. Explains Dr. Leffell, "We determined that when one shines a low-power laser on the skin, the skin itself flouresces. When we measure the fluorescence, we note a unique pattern from sun-damaged skin."

Laser-induced fluorescence may one day lead to early detection of sun damage that ordinarily does not manifest itself for 10 to 20 years. This technology also may offer the first objective way to verify claims that Retin-A and other commercial products produce beneficial changes in photodamaged skin.

Pharmaceutical Links

Dr. Edelson's longtime collaboration with Johnson & Johnson to develop photopheresis has set the stage for other

cooperation between the dermatology department and the pharmaceutical industry. This supports the principal research funding the department obtains from the National Institutes of Health.

Last year the School of Medicine established what Dr. Edelson calls a "model arrangement" with Chemex Pharmaceuticals of Denver, a company that specializes in drugs for skin cancer and various common dermatologic diseases such as psoriasis.

In return for underwriting dermatologic research, Yale offers Chemex first refusal for discoveries with commercial applications that are made by Yale scientists supported by the company's grant. If Chemex opts to bypass an idea presented from Yale, the School of Medicine is free to submit the proposal elsewhere. Should Chemex purchase the rights to any Yale discoveries, the company must provide an additional three years of support, and the School of Medicine will receive royalties for any resulting products.

Where is Yale dermatology headed in the next decade? Observes Dr. Edelson: "Dermatology is undergoing a major growth spurt and our department is an important part of it. Exceptionally talented individuals are entering the field. For only three positions, we received approximately 300 applicants, including seven from Yale-New Haven Hospital residents. The clinical and research environments in our department are unusually fertile, and we expect to play a very important role as the specialty moves into the last decade of this century." YM

A 30-Year Foundation

Over the past three decades, the School of Medicine has created one of the world's best research programs in dermatology. Yale graduates hold the chairmanships of many of the leading dermatology departments across the country. Much of the credit for this excellence belongs to Aaron B. Lerner, M.D., Ph.D., a professor in the department that he led for 30 years.

In 1956, Dr. Lerner became the first director of the division of dermatology at Yale. He assumed the position of chairman when the department was created in 1971, and continued in that role until 1986. Throughout that period, one overriding theme guided him.

"I was concerned," says Professor Lerner in his characteristic quiet tone, "with bringing science to clinical medicine."

At a time when most dermatology departments practiced descriptive medicine, Dr. Lerner was forging rigorous new scientific directions, thus helping to refashion a venerable specialty that dates back to ancient Greece.

Dr. Lerner has centered much of his research on the biology of pigmentation. Patients with pigment disorders come to him for diagnosis and treatment from around the world. Most recently, Dr. Lerner and his colleagues have developed a new method to restore skin pigmentation.

For his many accomplishments, Professor Lerner won election to the National Academy of Science in 1973, the only American dermatologist to be so honored. Last spring he was elected to senior membership in the Institute of Medicine.



Aaron B. Lerner, M.D., Ph.D., remains active as a professor in the department he chaired for 30 years, until 1986. Here, he and his colleague Ruth Halaban, Ph.D., research scientist, examine an x-ray film of radiolabled proteins crucial for the synthesis of melanin. Analysis of normal and mutant pigment cells shows that a defect in glycosylation of tyrosinase brings about the difference in color between normal and albino pigment cells.

ON WRITING A HISTORY OF MEDICINE

by Dr. Sherwin B. Nuland '55

When I first began writing *Doctors* in the spring of 1985, my intention was that the book should be a series of biographies. The only connecting thread I envisioned was science. My subjects were chosen as exemplars: In each era, I planned to describe a historical figure whose work represented a major scientific advance. In this way, I would chronicle that evolving logical approach to healing that Hippocrates called "the Art."

To my surprise, however, the more I pored over my sources, the more obvious it became that the web of medical history was threaded by more than science alone. I grew aware, for example, that the struggle between scientific medicine and holistic healing was a lot older than I had imagined; it began in Greece and has never left the arena.

The next, perhaps more obvious, thread was the clear evidence that medical contributions are, much more than I had realized, a reflection of the culture of the society in which they take place.

Thus, the philosophical schools of classical antiquity, the dawning of the Middle Ages and the Renaissance, the 17th century's rise of inductive reasoning, the Enlightenment, the French Revolution, the cultural unification of the Germanspeaking peoples, and finally, certain changes in the atmosphere of American intellectual and philanthropic endeavors—all had far-reaching effects on the development of medicine.

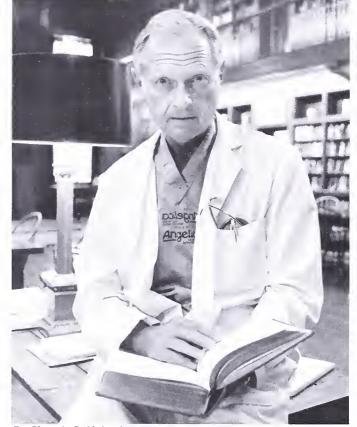
Not only that, but as a result the ascendancy in contributions could be traced from one national group to another: from the Greeks, to the Arabs, to northern Italy, to France, to the German-speaking countries, and finally to America, with the British close behind the leaders in every period after the 15th century. As each culture reached its own particular flowering, there was a concomitant medical advance that grew out of that unique societal state.

Even that quality some call "national character" seemed to play a part. The logic of the Greeks, the artistic temperament of the northern Italians, the sensualism of the French, the nononsense directness of the British, the compulsive detailtracking of the Germans, and the can-do inventiveness of the Americans—not to mention our tendency to attempt solving problems by throwing vast sums of money at them—these all played a major role in medical discovery.

Other threads gradually made their appearance, such as the rise of universities and their increasing participation in medicine and research, the evolution of each age's technology, the democratization of the West, the development of medical ethics, and the involvement of government. Any of these could have been used as a major theme for a book like mine.

A Focus on the Balance

The theme that I chose for Doctors, though, is that steady



Dr. Sherwin B. Nuland

state in the history of our profession that is unchanging: the unique mixture of science and humanism we call "the doctor-patient relationship."

At Yale, we have traditionally celebrated this relationship at each commencement with the Miriam Kathleen Dasey Award, given to the student who is judged by the faculty to be the most compassionate physician. For the two-and-a-half decades ending in 1950, Miss Dasey, although officially the registrar, was in fact the entire administrative infrastructure of the School of Medicine. She was the equivalent of the deputy dean and that whole posse of assistant deans who currently ease the cares of students, faculty and today's sachem of Sterling, Leon Rosenberg.

Miriam Dasey worried about the future of the medical profession. She wondered whether the multiplying strength of science would so overpower the priorities of her newly graduating doctors that they would allow their increasing

Dr. Sherwin B. Nuland is an associate clinical professor of surgery at the School of Medicine and a full-time surgeon in private practice in New Haven. He is a 20-year member and a former president of the Beaumont Medical Club. His recent book, Doctors: The Biography of Medicine, published by Alfred A. Knopf, was featured as an alternate selection of the Book-of-the-Month Club and the History Book Club.

cellular orientation to affect their concern for the frightened sick who came to them for help. Although she applauded the fact that Yale was rapidly assuming a position of leadership in clinical and basic research, she had her qualms, and she looked for sources of inspiration.

Miss Dasey sought that inspiration in the words of another good worrier whose apprehensions mirrored her own. In 1927, Dr. Francis Weld Peabody had addressed a class of Harvard medical students on the dangers of allowing the science of medicine to interfere with the art of medicine. "They are not antagonistic," he pointed out, "but supplementary to each other." He concluded his lecture with a sentence that Miriam Dasey chose as the motto for the award to be named for her: "One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient."

Dr. Peabody's words, which have been repeated before countless groups of students, clearly identify the key to being a compleat clinician. Because these words represent the meld of science and humanism that is the highest ideal of modern medicine, I have used them as the epigraph of *Doctors*.

Ancient Controversies

As I came to realize, the seeming conflict between the two aspects of the art of healing is not a new concern—medicine has been grappling with it since the days of Hippocrates. At the same time that the Hippocratic physicians were expounding the concept that disease is the result of an "imbalance of humors," there was a competing school on the peninsula opposite to their island of Cos, at Cnidos. The two schools opposed each other in a way that was much more significant than mere geography: The Cnidian focus was on the disease, while that of the Hippocratics was on the patient.

The Cnidian physicians were more like us—they were reductionists, fine-tuners who directed their efforts to the classification of the processes of sickness and to exactness of diagnosis. They sought to know the specific local organ disturbances that caused the symptoms they so assiduously categorized.

The Hippocratics, on the other hand, saw diseases as events that happen within the context of the life of the entire person—they oriented their treatment toward a restructuring of the natural conditions and defenses of the patient and the re-establishment of his proper relation to his surroundings.

By concentrating their therapies not on specificity of diagnosis but on the patient and his environment, and by making him a member of his own therapeutic team, they achieved successes that eluded their rivals. In this can be recognized the seeds of what has come to be called wholism, or holistic medicine; that is, holistic medicine divorced from some of the crackpot ideas that have encumbered it of late.

The Cnidians failed. Their system had the inherent weakness of requiring a much more accurate knowledge of anatomy, organ function, and pathophysiology than was possible at the time. The fulfillment of the Cnidian philosophy had to await the coming of modern medicine, with its gradual evolution of understanding of the physical and biochemical bases of disease, and subsequent strides in the technology of cure. That succession of triumphs would not get under way until the late Renaissance. The physicians of Cnidos entered the arena long before their time.

The story I have tried to tell in *Doctors* is the story of the eventual victory of the Cnidian concept and its ultimate rapprochement with the Coan. I have told it in the way that I think has the most appeal for modern readers: the biographies



In an illustration from a 16th-century volume of Ambroise P using instruments he invented. (Illustrations courtesy of the

of the major players.

Their names are familiar to every physician; they linger, at the very least, as memories and eponyms. They are such as Galen, Vesalius, Pare, Harvey, Morgagni, Hunter, Laennec, Semmelweis, Virchow, Lister, Halsted and Taussig. Because it seems to exemplify the hoped-for bringing together of science and humanism that I believe we are about to witness, I have chosen to end the book with a chapter on organ transplantation.

Even as it represents the acme of the attainments of modern laboratory science, the new field of transplantation is turning our thoughts back again to matters that traditionally have belonged in the realm of the philosophers. The same investigators who contemplate the nature of a strand of DNA must now contemplate the essence of what it means to be human.

Anatomy of the Soul

The electronmicroscopists and the tissue-typers are looking into the nature of man's individuality and perhaps his very soul—his or her personhood, as today's wordsmiths would put it. When the molecular biologists speak in terms of an organism's recognition of *self*, of the rejection of what is *foreign*, and of the acquiring of *tolerance*, the words they use convey the moral and philosophical implications of their work. Their reductionism is carrying them willy-nilly forward into a vision of the healer's art that is as holistic as it is scientific.

The beginnings of scientific medicine's momentum (and that of reductionism) can be traced to the work of one man, Andreas Vesalius. In 1543, the 28-year-old Vesalius paved the way for modernity by presenting to the world its first accurate knowledge of human anatomy. His book, *De Humani Corporis Fabrica*, provided the kind of technically accurate, magnificently annotated illustrations that brought anatomy to life on the printed page.

Expertly drawn by one of Titian's ablest pupils, those illustrations are the great glory of the Vesalian masterpiece.





c's, the famous physician is shown performing surgery [cical Historical Library. Photos by Bill Carter.)

Their clarity and beauty, their accurate correlation with the accompanying text, the general technique of typography—all combined to make the publication of the *Fabrica* a turning point not only in medicine, but in the history of education and of book-printing as well.

The major effect of the Vesalian influence, besides its elucidation of anatomy, was to encourage physicians to make painstaking observations about the phenomena of human biology, to record those observations, and to attempt the kind of logical synthesis that came to be known as inductive reasoning.

The first major outgrowth of medicine's application of inductive reasoning was William Harvey's demonstration of the circulation of the blood, described in his 1628 publication *De Motu Cordis et Sanguinis in Animalibus*. In a series of beautifully conceived experiments based on his observations and hypotheses, Harvey proved that the blood does not ebb and flow, as had been previously thought, but that, in his words, "The blood in the animal body moves around in a circle continuously, and that the action or function of the heart is to accomplish this by pumping."

Harvey's work was the outgrowth not only of the example of Vesalius, but even more directly of the new spirit of inquiry that characterized the 17th century. This was the period when the true principles of scientific logic first burst forth with a startling suddenness that changed forever the ways in which investigators pried into what William Harvey called "Nature's closet-secrets." A short list of 17th-century seekers will illustrate what I mean: Bacon, Bernoulli, Boyle, Descartes, Galileo, Halley, Hooke, Kepler, Leibnitz, Malpighi, Newton, Pascal, van Leeuwenhoek and Wren.

That great flowering paved the way for the next century's period of intellectual unshackling, an era that historians have been pleased to call the Age of Enlightenment. The thinkers of that remarkable epoch were characterized by a willingness—actually a crusading zeal—to question every given that had been bequeathed to them. In politics, religion, literature and in art, new forms were developing and a new skepticism made its appearance.

In medicine, the greatest product of Enlightenment thinking was Giovanni Morgagni's demonstration in 700 autopsies that every clinical symptom of disease is traceable to a specific pathological finding in some internal organ. His were the first clinical-pathological correlations.

Morgagni's 1761 book, in which he referred to symptoms as "the cries of the suffering organs," stimulated researchers not only to identify the seats of disease at autopsy, but in living patients as well. This resulted during the early 19th century in the origins of today's physical examination, with its basic principles of observation, palpation, percussion and auscultation.

The fresh winds of political freedom that were unleashed after the French Revolution blew across the field of medicine as well. Paris teaching hospitals became a mecca for Europeans and Americans who came to learn the methods of clinical observation, autopsy follow-up and medical education.

The greatest of the French masters was the diminutive, tubercular, flute-playing Breton named Rene Laennec, who chanced one day in 1816 upon some boys playing an old game in the courtyard of the Louvre: While one lad used a pin to scratch a pre-arranged signal on the end of a long piece of wood, the alert ear of his playmate was applied to the opposite end so that the conducted sound might be interpreted. From this simple observation Laennec conceived the idea of the stethoscope, and thus secured for himself a place in the pantheon of medical immortals.

Medicine was at this time advancing on an irregular front. Although the basic principles of clinical diagnosis had been laid down, therapeutics remained mired in the old Greek methods of bleeding and purging and puking the excessive humors out of the body—as if the light that was being shed on pathophysiology was not to be allowed to illuminate the entire edifice of healing.

Then, from another part of the world of science, a chemist, Louis Pasteur, discovered that bacteria are the cause of putrefaction in wine and beer. Applying that knowledge to his investigations of wound healing, Joseph Lister in 1867 showed that the dreadful carnage of postoperative wound infections (amputation carried a mortality rate averaging 40 percent in large English hospitals) was due to the creatures that live in what Pasteur called "the world of the infinitely small."

With the improvement of microscopy, a technology that already had been brought to an advanced state by his own father, Lister designed the basic methods of antisepsis, which soon evolved into the kind of prophylaxis that was given the name asepsis.

Thus, there arose a new paradigm of disease—the concept of single causes: Each disease has its own etiology and distinct pathophysiology. The "germ theory" became the model for a hundred years of medical research.

To find the underlying initial cause of every malady was henceforth the business of the researcher. Modern medical investigation has been based to a large extent on the proposition that the cause of any specific disease is unitary, and discoverable in the laboratory.

By the time Rudolf Virchow of Berlin discovered that the central site of disease is not the organ but the cell, medicine was ready to enter the age of pure reductionism with a vengeance—the Cnidian triumph was complete. Pathophysiology, and therefore disease, was now reducible to a set of disordered biochemical and physical phenomena

susceptible to correction by highly specific therapeutic agents or by extirpation of the site of sickness.

Reductionism and Reality

And so arose the foundations of 20th-century medicine. It has been called a medicine based on the theory of single causes. It also has been called a medicine based on a principle so reductionist that the suffering patient has become only a container for the affected organ or cell.

But the true physicians (and I really do think this applies to the great majority of us) have always recognized that the art of healing is not entirely a reductionist enterprise. We have never forgotten the reality of sick people and their families. The most effective medicine, and the most rewarding, is practiced when the philosophies of Cos and Cnidos are merged.

In casting about to identify the 20th-century clinician-researcher whose life might best serve as a proof that the two schools are not incompatibly strange bedfellows, I found myself ineluctably drawn toward Helen Taussig.

As things turned out, it was no accident that the doctor whose career epitomized the synthesis of the two philosophies would prove to be a woman. Nor was it a coincidence that the advent of equality for women physicians should be accompanied by what I can only describe as an expansion of a sense of our original mission as doctors, which is the healing of our fellows.

In an era when we sloganize so glibly of "raising our consciousness" about this or

that, physicians are indeed raising their sights, albeit still more slowly than might be wished, from the electron microscopes and ultrafiltration chambers into the pleading eyes of the sick. Hippocratic wholism is again leavening the practice of medicine as it has not done for a period that is longer than we like to admit. It promises to fulfill the charge which we have been privileged since antiquity to undertake.

To a significant degree, I believe, it is the increasing

influence of women physicians that has brought about our return to the wholeness of our patients, and with it the wholeness of ourselves as doctors. Helen Taussig brought a combination of pure science and human empathy to bear on one of the oldest problems of pathological anatomy, and she found a solution that was recognized as the acme of the healer's art.

In solving some of the previously inscrutable mysteries of congenital heart disease, she applied the best kind of reductionism and the most all-inclusive wholism; she treated

> sick people and sick families while she treated sick valves and sick vessels.

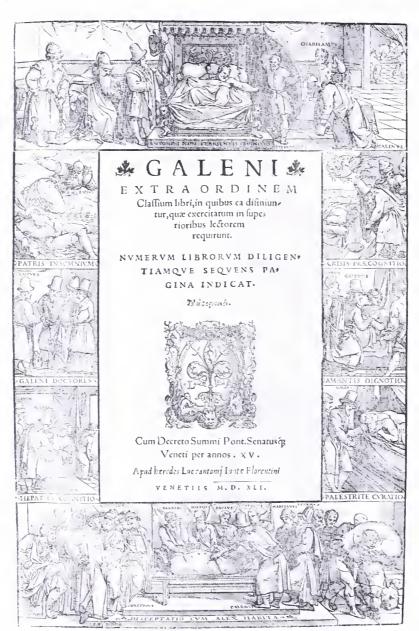
> Helen Taussig and two generations of women physicians following her have changed the atmosphere in which we doctors work. They have taught even the most detached among us that physicians are not centurions of cure-we shepherds sustenance.

> Even ward rounds are different than they used to be; I believe that today's residents have more empathy with their patients and with each other than we did in my day. The teachers of yesteryear warned against the perils of what was called "emotional involvement."

This is not to say that we were unkind to our patients, merely that we kept our distance. We treated them with respect and even a kind of formalized dignity. We were as gentle as we knew how to be. But we were men apart—we towered over the sick as an adult towered over a child.

The technoscience of today's form of reductionist research is

changing something else as well—our old friend, the theory of primary causes. We are beginning to look at disease not as the outcome of one precise agency, but as the result of many factors working together. There is an emerging new paradigm that we can use to comprehend the mysteries of pathophysiology, in which such considerations as environmental and psychological studies may find themselves sharing the stage with immunology and genetics and the



Frontpiece: Volume 1, Latin translation of Galen; Venice, 1541

microbiology laboratory.

We will discover, I think, that for someone to get sick, a sequence of things must go wrong, and the individual events



A portrait of Giovanni Battista Morgagni by French engraver Jean Renard. Morgagni introduced the anatomical concept of disease.

will probably prove to be different for each of us. Your sore throat and mine have different antecedents, different ways in which the stage is set for the microbe to do its dirty work.

Today's medicine is evolving much more toward the healer's art than it has since it first threw in its lot with science. I do not agree with those critics of our profession who say that junior physicians are becoming ever more detached technocrats.

The critics have not prowled the wards as I have and seen the changes of recent years. Our young men and women are learning from each other; our juniors are teaching their elders. We are no longer reluctant to nurture for fear it will dilute the effectiveness of disinterested science.

In nurturing our patients, we nurture ourselves, and make ourselves better doctors. Miriam Dasey, looking down on all this from her celestial seat, must be very pleased. YM

Contributions of an Anatomist/Historian



Professor Emeritus Thomas R. Forbes

Several illustrations in *Doctors* come from the collections of Thomas R. Forbes, Ph.D., Ebenezer K. Hunt Professor Emeritus of Anatomy, senior research scholar in the history of medicine and advisor in Yale medical memorabilia. A former editor of the *Journal of the History of Medicine and Allied Sciences*, Professor Forbes is the author and editor of several books and over 250 articles in the areas of medicine and the history of medicine. He also produced four films in the latter field. For 40 years he gave a course on the history of anatomy and medical terminology. He has been working on a book that uses a modern forensic approach to analyze several murders—once notorious but now forgotten—that occurred in England between the 13th and the 19th centuries.

Editor's note: Professor Thomas R. Forbes died at Connecticut Hospice on Nov. 19, after a long illness. His obituary will appear in the Spring 1989 edition of YALE MEDICINE.

REKINDLING THE TORCH

by Dr. Leon E. Rosenberg

My subject has been at the front of my mind for more than a year following a wrenching, constructive dialogue with a group of Yale medical students. It has been at the back of my mind my entire life. Its ramifications extend to health, economics, law, politics, and beyond all of them to the very structure and sustenance of our society. I want to talk about the single largest domestic problem our country faces today: our disadvantaged racial and ethnic minorities. I want to talk about rekindling the torch of justice and progress.

Consider the dimensions of the problem:

- Blacks, Hispanics, Asian-Americans and American Indians (whom I'll refer to collectively as the minorities) now comprise 14 percent of all adults and 20 percent of children in this country. By the year 2000, one-third of all schoolage children will be members of these groups.
- These minorities are most numerous in larger cities. They
 account for one-third of the total population and the vast
 majority of the poor in New Haven, which is after all,
 Yale's community.
- In 1986, nearly one-third of blacks and Hispanics had incomes below the poverty level, almost three times the rate for whites.
- The unemployment rate for blacks now stands at 12 percent and that for Hispanics at 9 percent, compared to 4.5 percent for whites.

The educational indices are even more alarming.

- In 1986, 20 percent of whites had completed four years of college or more, compared to 11 percent for blacks and 8 percent for Hispanics.
- In 1987, black students earned only 222, or 1.8 percent, of the 12,480 doctorates awarded to U.S. citizens in science and engineering; in that same year, only 5 percent of all M.D. degrees awarded in this country went to blacks and 2 percent to Hispanics.

Yale University's statistics are no more satisfactory. In 1987, minorities constituted only 5.6 percent of students in our graduate school, 8 percent in our school of organization and management, and 12 percent in our law and medical schools. Minorities make up only 7.6 percent of the Yale University tenure-track faculty in 1988. What makes these Yale numbers most disheartening is that none of them have changed over the past six years.

Dr. Leon E. Rosenberg is C.N.H. Long Professor of Human Genetics and dean of the School of Medicine. This article is excerpted from his address, "America's Disadvantaged Minorities: Rekindling the Torch," which he delivered to incoming students at the Graduate and Professional Assembly, Sept. 8, 1988.

Statistics like these mask many individual examples of economic achievement and educational attainment among minorities. Asian-Americans, in particular, have fared much better, and will not be commented on further.

Because health statistics are influenced by educational and economic indicators, it should come as no surprise that the health of minorities as a group is much poorer than that of whites. To this nation's shame, minorities are as overrepresented in our clinics, hospitals and morgues as they are underrepresented in our universities, executive suites and professions.

A few examples:

- As of 1986, black life expectancy was 71 years, four years less than that for whites.
- For the past 40 years, infant mortality has been twice as high in blacks as in whites, and the gap is not closing.
- Maternal mortality now stands nearly four-fold higher in blacks than in whites.
- In 1980, 36 percent of minorities had no health care coverage or "poverty-level" coverage, compared to 13 percent for whites.
- Whereas blacks comprise 12 percent of the population, they
 account for 25 percent of those in our country who have
 AIDS or who have died of AIDS. Among children under 13
 years, the disparity is truly shocking. Three times as many
 black and Hispanic children as white children have died of
 AIDS.

If these tragic trends project a future for minorities too searing to comprehend, I ask that you open—not close—your minds. This problem, however large and complex, can be solved if Americans everywhere have the decency to understand it, the courage to face it, and the patience to overcome it.

Painful Heritage

It may be useful to review some relevant history. I will use the black experience as an example. We've all been exposed to this information, but it is a sad and painful part of our American heritage—one we are inclined to forget.

Since the beginning of time, more powerful men have subjugated and enslaved less powerful ones. One important result of this process was material. Slave masters could force the enslaved to do whatever jobs they wanted done—particularly those they didn't want to do themselves.

Another key outcome was psychological. It permitted the victor to feel superior to the vanquished. Prior to the Protestant Reformation of the 16th century, there was no need to justify exploitation of any group by any other—it was accepted as a way of achieving psychological, social and economic security. But the religious crux of the Reformation made mankind directly accountable to God, and gave mankind personal rights, worth and responsibilities previously unclaimed.



"This problem, however large and complex, can be solved if Americans everywhere have the decency to understand it, the courage to face it, and the patience to overcome it." (Photos by Michael Marsland)

This dogma made it necessary to believe and to demonstrate that slaves were different from all other people; that they were less than human. Whatever moral conflicts this view engendered, the lure of overseas riches and resources—and the need for people to exploit them—emerged triumphant, and so began the subjugation and pillage of black West Africans by white Europeans. When national economic priorities demanded a cheap, large labor force, blacks—with their different color, culture and religion—were easily reduced to creatures suitable for enslavement. Then followed the inevitable propaganda, that slavery was not only beneficial but just, and that it was the superior white man's duty to bring "the light" to the black man's dark life.

And so the well was poisoned, along with all who drank from it. When black Africans were dragged to America as slaves 350 years ago, however, their kinships were disrupted and their communal life was replaced by a rigid hierarchy of authority and control. Dependence, passivity and immobility were imposed, precisely the opposite qualities—independence, aggression and mobility—that drew European immigrants pursuing the American dream to our country. This epoch of black slavery lasted for 250 years—for 10

generations. It destroyed much of the blacks' former West African culture and replaced it with an impoverished slave culture presided over by and benefitting the slave holder.

When the Civil War abruptly ended slavery, former slaves were extraordinarily vulnerable. Always made to feel inferior, they lacked both education and financial resources. So they quickly ended up at the bottom of the social and economic ladder in the rural South—legally disenfranchised by cruel, corrupt politicians; economically and psychologically impoverished by their experience; demeaned by the very labels used to refer to them—nigger, Sambo, darkie, black devil.

While the whites became the businessmen, farmers and professionals after the Civil War, the blacks became tenant farmers, sharecroppers and domestics. This life was infinitely superior to slavery, but nothing like that which the waves of immigrants to the North during the latter half of the 19th century and the first quarter of the 20th experienced.

These groups too—Scandinavians, Germans, Irish, Italians, Poles, Greeks, Russians, Jews—were assaulted, insulted and exploited by those who had come before, but their experience cannot be compared with that of the blacks. These immigrants

were of the same race and color of the white Americans they joined. They came because they wanted to. They came with their friends, families, faiths. They came convinced that they were as good as anyone else. They came transfigured by the idea that their children would be better off than they were. And they came generally to the North—to that part of the country which had opposed slavery as morally wrong and which championed public education for all as the key to open the gate of opportunity.

Northern Migration

The final chapter of this admittedly oversimplified history occurred after World War II when many blacks moved to Northern cities convinced that they, too, could experience the rewards which were making America the beacon to people everywhere. But the beacon they followed signalled that education was the first and foremost prerequisite to success, and this is where the blacks were most deficient.

Their American experience—300 years of it—had not taught them its crucial worth. Their schools in the South had been systematically and purposefully underfunded and unequal. And so they came without the skills or background needed to succeed in the progressively technical, mechanized, organized society of the urban North.

Unions shunned them; suburbs restricted them; racists abused them. Despite these barriers, many black families managed to succeed and work for change. But the economic and social progress made by most blacks was not as rapid as they or much of the white majority hoped for. Impatience too often led to frustration; frustration to anger; anger to violence; violence to despair; and despair to hopelessness.

I present this historical account for several reasons: First, because it emphasizes how different the black experience in America is from that of any other group in our population—majority or minority—and accounts in a major way for the difficult position blacks are in today. Second, because it reminds us that we, the white majority, set this experience in motion and continue to control its pace, purpose and direction.

Third, because it is the truth, and that, as the word "veritas" in the Yale emblem signifies, is what this university and your reason for being here is about. And fourth, because we cannot make the next part of this piece of American life more positive without appreciating where we are now and how we got here.

I would be very wrong to imply that the United States has made no significant progress toward the goal of full participation by minority students. Much has been done. Let me quote from a recent commission report on Minority Participation in Education and American Life entitled *One Third of a Nation*. This commission was chaired by the president of Cornell University, Frank Rhodes.

"Too often [progress] goes unacknowledged. Advocates for disadvantaged groups, understandably eager to focus the attention of their fellow citizens on unfinished business, often ignore the very markers of improvement that might inspire new energy for their cause. This...has had at least one unhappy result: because so many successes have gone unnoticed and unremarked, a sense of weariness and discouragement has come to characterize the national debate over the pace and process of minority advancement. Yet the progress is there—on the record, revealed in census figures and the lives of real people.... It is impressive proof of what

we can achieve together—and what disadvantaged citizens can achieve for themselves."

Here is some of that progress:

- In the 1960s, black family income increased after inflation by 48 percent compared to 34 percent for whites. That was the exciting decade of John and Robert Kennedy's words, of Martin Luther King Jr.'s dreams, and of Lyndon Johnson's laws.
- Educational achievement by poor and minority students throughout the land was accelerated by programs like Head Start and Chapter 1. Here in New Haven, a young black Yale School of Medicine faculty member named James P. Comer developed and led a bold, controversial, educational intervention program in two largely black elementary schools where students were performing dismally. Between 1969 and the present, sustained use of Dr. Comer's program has caused standardized national test results for fourth graders to rise from the bottom of all elementary schools in our city to the top.
- Between 1977 and 1987, average SAT scores for black students rose by 21 percentage points on the verbal portion



"Complacency, fatigue, bickering and backlash slowed the mome w

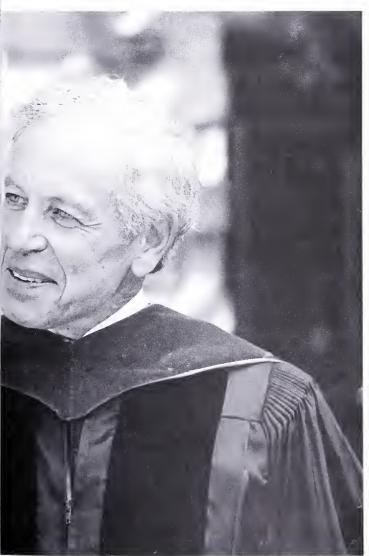
and 20 points in math. During that interval, average scores for white students were unchanged.

- Between 1971 and 1981, total college enrollment by minorities rose by 55 percent.
- In the 15 years after Medicaid laws were enacted, black infant mortality fell by nearly 50 percent.

This progress occurred according to a formula consisting of four key elements: economic growth with low inflation; a political consensus favoring minority advancement; adequately funded, well-administered programs at every level of government and the private sector, and the determination of minorities to help themselves.

Splintered Coalition

Sadly, this progress has halted in the 1980s. Complacency, fatigue, bickering and backlash slowed the momentum and splintered the coalition of the civil rights movement. Reagan administration priorities were elsewhere. Defense appropriations rose at the expense of social programs for the poor and disadvantaged. Federal deficits ballooned, and funds for educational programs and student financial aid were



splintered the coalition of the civil rights movement."

restricted. Not surprisingly, the minorities suffered disproportionately.

- While the college participation rate for white students rose between 1975 and 1985, the rate for blacks actually fell, and the rates for Hispanic youths and for American Indians remained shockingly low.
- The income gap between white and minority families has widened.
- The political consensus favoring minority advancement has been replaced by episodes of vicious anti-black racism on several of our college campuses and by equally venomous instances of anti-semitism perpetrated by blacks in our cities.

Where to go from here? This nation must choose among very different courses. We can retreat from the goal of equal opportunity for all our citizens, which this country has long espoused, and allow minorities to separate permanently, and unequally, from the white majority.

That course is unthinkable because it is morally wrong and because its signposts read urban decay, increased social tension, a lower living standard, and ultimately national decline. Further, simple economic self-interest tells us to shun this path. There are now 100 workers for every 30 beneficiaries of social security. In a mere 40 years, there will be only 60 workers for every 30 beneficiaries. Because the work force at that time will contain a much higher fraction of minorities than it has today, it behooves Americans of every background to have a stake in the employability and earning power of those indispensable future minority workers. Without them, this country will not be able to pay for the enormous needs of the growing number of aging Americans of every creed and color.

The other course is to reaffirm, as a national goal, our commitment to full, equitable participation in American life by all our citizens; to rededicate ourselves to the vision of a United States in which the quality of life for the minority population is as high as that of the white majority. This course will be long and difficult. It will require ehanging attitudes—by minorities and the majority—as well as taking actions. It will be a marathon, not a sprint. In actuality, it will be a cross-country relay marathon, and the baton (or torch) will have to be passed countless times over many decades.

New Challenges

To follow this course we need a plan. The National Commission on Minority Participation to which I referred earlier has set down strategies in the form of challenges:

- They challenged the nation's elected officials to lead efforts to assure minority advancement.
- They challenged private and voluntary organizations to initiate new and expand existing programs designed to increase minority participation and achievement.
- They challenged minority public officials, institutions and voluntary organizations to expand their leadership roles.
- They challenged leaders in government and business to stimulate economic growth and restore national solvency so that needed social programs can be afforded and needed job opportunities can appear.

Their challenges to America's institutions of higher learning are the challenges most clearly directed to each of us:

- They challenged us to renew and strengthen our efforts to increase minority recruitment, retention and graduation.
- They challenged us to strengthen education of minorities by improving coordination and cooperation among all levels of our diverse educational system.

I believe Yale University—this center of teaching and learning, this citadel of ideas and of conscience—must rise to these challenges again as it did under Kingman Brewster in 1969 when anguished groups of frustrated young minorities flung themselves at our cities and the gates of our universities. Yale was a ray of hope—a light of reason—to our nation then; it should be one now. We can do many things if we want to.

First, we can demonstrate our commitment to decency and civility for minorities by subscribing to a code of conduct. More than a year ago, in response to a small number of ugly racist insults witnessed in the School of Medicine and in Yale-New Haven Hospital, minority and majority students and faculty prepared such a code which we've adopted.

Its key passages read as follows:

"Teaching, learning, research and the delivery of medical care are best carried out in an atmosphere of civil relationships. Such relationships are possible only where there is mutual respect, decency and sensitivity one to another—students, faculty, staff and patients. Overt racism is not only morally wrong. It interferes with the quality of care received by patients, is debilitating to the victims, and compromises the integrity and stature of the offender. Less obvious forms of racism such as disparaging comments, inappropriate labels, or subtle innuendoes which unfairly classify or criticize others on the basis of race are equally unacceptable. Wherever and whenever racist or insensitive remarks are heard or inappropriate actions witnessed, it should be the duty of every one of us to protest and to inform the offender about the reasons for our disapproval. Furthermore, it is our responsibility to help those who have been wronged to obtain satisfactory redress.'

Second, we can recruit and retain minority students and faculty more aggressively. The spirit and ethic of affirmative action require extra energy and extra resources. However small the pool of qualified minority candidates, we can increase our share—as other leading institutions have done. This may require such signal events as creating a specific Office for Minority Affairs, and giving special weight to certain aspects of applications of minority candidates, and modifying student financial aid packages to reflect the unusual economic problems of minorities. The rewards to Yale and to our country of such a policy are well worth the effort, the controversy and the financial expense.

Third, we can act on our belief that education of minorities, more than any other single action, will allow them the fullest opportunity to share the benefits of American society. We can act by expanding Yale's adult education programs and summer school activities.

We can act by volunteering to serve as auxiliary teachers in the nursery, elementary and secondary public schools in New Haven, where nearly 75 percent of the students are from minorities. If each of the 12,000 Yale students and faculty gave one hour per week to such programs, that would generate the equivalent of 1,500 work days every week. Imagine what this tithe of time could accomplish.

We can do these things and much more if we believe that the goal is worth the effort, that the rewards justify the sacrifice. But we can't wait any longer. My generation has proven that, by itself, it is incapable of making Martin Luther King Jr.'s dream a reality, of living in a land where children are not judged by the color of their skin but by the content of their character. Many of my generation are as fervently committed to our disadvantaged minorities as we've always been. But age has a way of substituting a preoccupation with security for a passion for decency. Age has a way of bowing the head rather than squaring the shoulders.

We need to be reinforced, and revived, by you—the less scarred younger generation. On the other hand, you need to be reminded that, as you define your specialized career paths, you run the risk of becoming self-absorbed—of turning inward and of neglecting the great societal issues around you. If you do this, all the gains you make in your own fields may be for naught. You are more than the future leaders of your disciplines. You are the hope of our society.

We need you to open your hearts, to extend your hands, and, if necessary, even to clench your fists. We need you to insist that no more generations of America's minorities can be wasted. Together, but only together, perhaps we can lead our nation to a height it has never been for a view it has never seen. YM

Michelle Smith-Jefferies, Class of 1988 (Photo by Bill Carter)



YALE MEDICINE Fall/Winter 1988-1989

THREE POEMS by Doris Iarovici

Thursday from the 96

This morning

grey like any other

like yesterday, and Monday

but warmer, promising spring

They lifted him out of his wheel chair

As the bus pulled into the station across the street As Mme. Bouvier came out of the bakery,

one warm baguette in each hand

They lifted him up

One strong arm under each bony shoulder

Up

As his tan terry robe, worn at the elbows

Gaped open, exposing a bony chest

where a few white hairs still grew

As Mme. Bouvier stopped, seeing,

mouth open, eyes wide—

Up onto the white plank.

In a moment of blackness

A long time ago this morning

His heart stopped, quietly

to rest

His daughter gasped

and cried

and cried when his eyes reopened

cried and embraced him

Strange to imagine such activity in the quiet of his

kitchen

As water boiled

for coffee

This morning

it was time to go but

the white plank smelled of disinfectant

and he

his paralyzed legs spreading, sprawling

on the plank

was vaguely ashamed.

They arranged his robe, snugly

around his chest

Pulled the blankets, neatly

over his legs

Spoke professional words of comfort

As he smelled Paris

coffee

cigarettes and

morning bread

Paris

stronger than antiseptic

Still.



Doris Iarovici

History

Mama

I am becoming you

As I sit bathing in pine perfume

Beneath a chorus of cicadas

So far away from home,

I am becoming you

As I walk down these ancient marble streets

Between the fallen columns that once reached the sky,

So far away from home...

My thoughts now echo what you used to say

When we would visit Italy, when I was small.

These ruins are alive with screaming bugs, With roaming cats that arch their bony backs At children playing on the steps of shrines. The stones are warm from sitting in the sun But I prefer to rest upon the trunk Of this fallen pine. You'd do the same, I know.

Doris Iarovici is a second-year student at the School of Medicine. These poems were part of her winning submission for the 1988 Marguerite Rush Lerner Prize for excellence in creative writing by a Yale medical student.

Mama
My feet have hardened, their soles white, like yours
And in the heavy heat of afternoons
I lie in semidarkness, napping, stretched
Across hard springless beds in stuffy rooms
Of Greek hotels. Remember how in Nice you used to need
To nap at noon, brow beaded from the heat?
And Mama, now
I walk among the years all day—
I touch the stones, the temples of the dead
Decipher characters that call to me
Less loudly than the screaming bugs above.

But this history. Men put up columns of undying stone, The stones stand still. Pine needles carpet them, And I walk on, enveloped in the heat. I wonder what we'll leave, what monuments—You, I, and all the daughters that may come To stroll down streets of ancient Greece someday.

Mama, I am becoming you— I walk inside you, I see through your eyes— I look up toward the sky for signs of storm.

In Confrontation

Afterward, confused, I thought I'd dreamt
The chilling screech of tires giving up
The ring of metal slapping metal, hard,
That jerked my sleep away, commanding "hear!"
Silence followed. My pillow's warmth reached out
And whispered, "Sleep! Forget! Don't think...!"
But I heard sirens screaming in the night,
Wailing like newborns as my room spun round
Around my bed—cold flushes of red light
—Real, after all? Had anyone been killed?

My memory of him is real enough.

Nights now I sleep, warm, silent like my dreams,
Complete. And yet the nights I spent awake,
Ears straining for the creak of the porch door,
Hand poised to spring to give the Trimline life
In answer to its purr, letting blue numbers light—
Those nights must be material enough,
If my words would obey. Then memories would burn
Like fires on a beach, each full of life
They'd rise, like walking, waking dreams.

In the end, in cowardice, of course I told him in a letter on pale blue That I was not material enough To coast through time in shiny black new Saabs Or spend my Sunday mornings over brunch And evenings fingering the Stock Exchange, Waiting for accidents to make me feel Life kick inside me like an unborn child.

Moments are all, and letters give them life.

YM



Doris Iarovici receives the Marguerite Rush Lerner Prize from Dr. Robert H. Gifford, associate dean for education and student affairs, as Dr. Aaron B. Lerner looks on. (Photos; James Anderson)

GALLERY

Anxiety, Frustration, Repressed Hostility

by Boris Artzybasheff (1899–1965)



COURTESY OF THE YALE MEDICAL HISTORICAL LIBRARY

In 1947, these images appeared in *Life* magazine, illustrating an article on the "boom" of psychoanalysis. In this lithograph, the personification of three neurotic symptoms are poignantly depicted facing one another: indecision, timidity and infantilism.

It is telling that an article of this nature was published in one of the most popular periodicals of the day. The piece treats the rise of psychiatry with a thinly veiled skepticism, although it does give a fairly objective historical survey. Public acceptance of psychiatry is ascribed to its use during World War II and the rise of literary and film genres that employ Freudian symbols.

Boris Artzybasheff was a Russian-born immigrant who came to the U.S. in 1919. His plentiful work includes illustrations for children's books and more than 200 covers for *Time* magazine. He often uses the technique of lending human attributes to inanimate or abstract artistic motifs which, in addition to neuroses, frequently include machinery. His artwork incorporates elements of art nouveau and surrealism, as well as an innovative sense of color. Artzybasheff worked for the U.S. Department of State in the Psychological Warfare Branch as an expert advisor, so presumably he new his subject well.

—Janis Braun

SCOPE



Dean Leon E. Rosenberg extends a hand of congratulations to Hartmut Michel, Ph.D., after a press conference where the West German scientist discussed his Nobel Prize in chemistry. Dr. Emile Boulpaep, chairman of the school's department of cellular and molecular physiology, looks on. Michel was speaking at a School of Medicine conference on protein-membrane interactions on Oct. 19 when the award was announced. The senior research associate at the Max Planck Institute for Biophysics in Munich shared his award with two West German colleagues. (Photo: Michael Marsland)

John F. Enders Papers Come to Yale University

Mrs. Carolyn K. Enders has donated the papers of her husband, the late John F. Enders, Ph.D., to the medical collection of Sterling Memorial Library. The papers comprise a detailed picture of Dr. Enders, a Nobel laureate, from his schoolboy days to his college years at Yale (Class of 1919) and throughout his remarkable career as a scientist and professor at Harvard Medical School.

Professor Enders' work had a profound impact on the development of vaccines for polio, measles and mumps. As a result of his work, polio and measles have virtually been eradicated in developed countries. He received the Nobel Prize in 1954, an award which he shared with his junior colleagues, Drs. Frederic Robbins and Thomas Weller.

Dr. Enders and his team discovered that the polio virus could be propagated in cultures of human embryonic skin and muscle tissue. The virus had previously been grown only in neural tissue. The scientists' research led to a new technique in cytopathology, in which a virus destroys cultured cells so its titer (concentration) can be measured. This facilitated the large-scale production of polio and other viruses, a crucial step in vaccine development.

The field of molecular biology also is deeply indebted to John Enders as a pioneer of modern animal virology. The perfection of modern tissue culture techniques by the Enders group has allowed scientists to make fundamental advances in cancer research. It laid the groundwork for new technologies, such as genetic engineering, which rely on tissue culture for the production of biologically active drugs.

The Enders family has long ties to

Yale and Connecticut. At Yale, Dr. Enders studied under Dr. Ross Harrison, who in 1917 was the first zoologist to receive the Nobel Prize. Dr. Harrison made great contributions to the study of embryological development and is known as the father of tissue culture technique. The Harrison papers are part of Yale's medical collection and, with the addition of the Enders papers, capture a unique and crucial chapter in the development of biomedical science.

Mrs. Enders was a member of Dr. Enders' research team, and she continues to correspond with many of his colleagues and students. In a letter of thanks to Mrs. Enders for her gift, Dean Leon E. Rosenberg wrote, "Hurrah! Dr. Enders' papers have arrived at Yale and now are in the very expert and safe hands of our archivists. We will treasure these valuable and important papers."

Dr. Shulman Will Study Carbohydrate Metabolism

With a grant awarded by the Diabetes Research & Education Foundation, Dr. Gerald I. Shulman, assistant professor of medicine, will conduct a noninvasive examination of carbohydrate metabolism in humans.

Animal studies have shown that most of the body's liver glycogen, an important storage carbohydrate, is replenished by an indirect, or gluconeogenic pathway. In this pathway, glucose is processed into lactate and alanine, which in turn is processed into glycogen. Only one third of glycogen is derived from a direct pathway, that is, processed directly from glucose.

Dr. Shulman plans to study the impact of diabetes and the "fed versus fasted" states upon these pathways in humans. Experimental subjects will take Tylenol, which is excreted as a glycoconjugate in the urine. Dr. Shulman will test this excreted conjugate to sample the intrahepatic pool of glucose.

"Our findings may lead to a better understanding of how the liver synthesizes glycogen in normal and diabetic individuals," he notes. "This is important, since glycogen synthesis is quantitively a major factor in disposing of glucose load."

Researchers Target Advanced Glaucoma

The Yale Eye Center is one of 11 clinical research organizations selected to take part in the Advanced Glaucoma Intervention Study sponsored by the National Eye Institute. Yale is the only such center in New York and New England chosen to participate in the five-year study.

In advanced glaucoma cases, drug treatments have failed to adequately control the intraocular pressure which damages the optic nerve, and patients continue to lose vision. Their next treatment option is surgery, notes Dr. Joseph Caprioli, associate professor of ophthalmology and visual science, who directs the study at Yale. The ophthalmologists will evaluate the two most frequently used treatments for advanced glaucoma, conventional surgery, called trabeculectomy, and laser surgery, or argon laser trabeculoplasty.

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Conventional surgery, a type of filtering operation, improves fluid drainage out of the eye's front chamber and thus reduces pressure. By contrast, with laser surgery, fluid drainage is accomplished by focusing a high-energy beam of blue-green light on the eye's trabecular meshwork, through which fluid passes.

"We hope to decide which treatment in the long run will be better for patients with advanced glaucoma," Dr. Caprioli says.

Paton to Coordinate Med School Computing

To spearhead its efforts to coordinate a burgeoning computer capability, the School of Medicine has tapped John Paton, Ph.D., as director of the new Office of Academic Computing. Paton was director of the University's Science and Engineering Computing Facility for four years.

Dr. Robert M. Donaldson, deputy dean of the medical school, explains that the Office of Academic Computing will integrate several services at the medical school, including:

- the medical students' computer learning laboratory;
- the biomedical computing unit, which uses personal and mainframe computers at the medical school to assist researchers;
- the Medical Library's computerized information retrieval system.

Academic computing also will help develop systems for medical school departments such as pathology, anesthesiology and others that can benefit from networking with computers in other parts of the medical school and the University, and with Yale-New Haven Hospital.

New Renal Lithotriptor Comes to Yale-New Haven

The renal lithotripsy center at Yale-New Haven Hospital has opened a new mobile unit that replaces the cumbersome "bathtub" of early lithotriptors with a comfortable, waterfilled cushion that patients lie on for treatment of kidney stones.

The first of its kind in New England, the Domier HM4 uses a computer to direct shock waves through the water cushion to break up a patient's kidney stones. The waves pulverize the stones into particles small enough to be passed safely.

In addition to its improved technology, the YNHH lithotriptor illustrates another trend—the hospital is sharing its mobile unit with the University of Connecticut's John Dempsey Hospital as part of the state's health care cost-control strategy.

Team Pursues Virus In Alzheimer's Study

Some cases of Alzheimer's disease may be caused by an infectious agent similar to that which causes Creutzfeldt-Jakob disease (CJD), another devastating dementia, according to a team of researchers at the School of Medicine. Their hypothesis, based on a pilot study of blood from 11 human volunteers, suggests a new direction in thinking about the cause of the most common and devastating dementia in man.

The neuropathology team includes Dr. Elias E. Manuelidis, professor; Dr. Laura M. Manuelidis, associate professor; Dr. Jung H. Kim, associate professor; and William W. Fritch, associate in research. Dr. John M. de Figueiredo, associate clinical professor of psychiatry, provided patient evaluations and blood. They presented their findings in the July edition of the *Proceedings of the National Academy of Sciences*.

For years, researchers have tried unsuccessfully to conduct transmission studies with human brain tissue at the end stages of Alzheimer's disease. Dr. Manuelidis says he and his colleagues thought "it would be rewarding to check infectivity at early stages of Alzheimer's disease, when patients have only mild symptoms or none at all."

In their experiments, 11 human volunteers, members of families in which at least two siblings or parents had Alzheimer's disease, were psychiatrically and psychologically examined. With two exceptions, all volunteers were healthy when samples were taken.

The researchers collected a blood sample from each patient, separated the white blood cells and inoculated several hamsters with the cells. The researchers found that the white blood cells of five volunteers produced tissue changes in the hamsters similar to those they had seen in rodents infected with CJD.

"These transmission results raise the intriguing possibility that CJD-like agents may be involved in at least some forms of Alzheimer's disease," Dr. Elias Manuelidis concludes.

Mellon Foundation Grant Supports Young Faculty

In June 1988, the Andrew W. Mellon Foundation announced a \$400,000 grant to the School of Medicine to provide teaching and research opportunities to outstanding young investigators. This grant is the final award in a program at Yale that began in 1973. Since the first award, \$2.2 million has been provided by the foundation. During that time, more than 56 faculty members have received assistance. Those who have remained at Yale are among the medical school's most eminent and talented physicians and scientists.

In announcing the grant, William G. Bowen, president of the foundation, commented, "The chief purpose of these grants is to help retain and assist outstanding young talent in medical education and biomedical research that might otherwise be lost."

The grant will be used over a four-to-six-year period to encourage other sources to assist young medical faculty at a crucial point in their developing careers. The bequest of Elizabeth M. Jameson (see accompanying article) illustrates a major gift that was made in the spirit of the Mellon Foundation grant.

Jameson Bequest Endows Assistant Professorships

Yale's reputation as a leading center for psychiatric care and research will be strengthened by a significant gift through the estate of Mrs. Elizabeth M. Jameson of Newtown, Conn. Totaling more than \$2 million, the bequest will establish endowed funds in both the Child Study Center and the department of psychiatry.

Both the center and the department will receive an endowed assistant professorship and an affiliated research endowment. Each appointment will be for a three-year, non-renewable term. Recipients will be named the Elizabeth Mears and House Jameson Assistant Professors.

Mrs. Jameson, who died in April, was the daughter of John Mears, a theatrical manager for Florenz Ziegfeld, Sam Harris and Max Gordon. She started her stage career as an actress, and during World War II was a casting director for Dumont Television

Network. In 1959, she married the actor House Jameson who played for 18 years on radio and television as the father of the Aldrich family.

Although neither she nor her family had formal ties to Yale or its psychiatric programs, Mrs. Jameson left virtually her entire estate to the School of Medicine. The Jameson bequest will provide recognition and a perpetual source of financial support for young psychiatric faculty. "Such funding is of critical importance to Yale's ability to attract talented young mental health professionals before their careers are sufficiently advanced to generate grants from traditional sources," said Will Melton, director of development. "The generosity of Mrs. Jameson will do much to insure the continued excellence of Yale's psychiatric initiatives."

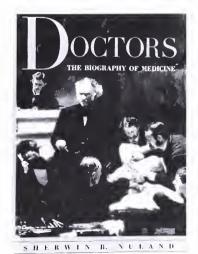
NEW BOOKS

In The Image Of God, A Psychoanalyst's View, by Dr. Stanley A. Leavy '35, clinical professor psychology (ret.), Yale University Press, 1988.

Dance Medicine, edited by Allan J. Ryan '43-45 HS, and Robert M. Stephens, Ph.D., Pluribus Press, (Chicago) 1987.

The Dancer's Complete Guide to Health Care and a Long Career, by Allan J. Ryan '43-45 HS, and Robert M. Stephens, Ph.D., Bonus Books, (Chicago) 1988.

Selected Topics in Medical Artificial Intelligence, edited by Dr. Perry Miller, associate professor of anesthesiology. Springer-Verlag, (New York) 1988.



Featured on page 11

OBITUARIES

Allan V.N. Goodyer, M.D.

Dr. Allan V.N. Goodyer '42 of Guilford, Conn., professor of medicine and former head of the section of cardiology at the School of Medicine, died Aug. 20 in a sailing accident in Long Island Sound. He was 69.

Dr. Goodyer's career at Yale as an undergraduate, medical student, house officer and faculty member spanned a period of 50 years.

As chief of cardiology, Dr. Goodyer researched cardiovascular physiology and cardiac performance and the interaction between the kidney and the heart. He was a former governor of the Connecticut Chapter of the American College of Cardiology; a past president of the Connecticut Chapter of the American Heart Association and a member of the American Society for Clinical Investigation. Dr. Goodyer also served three years as a medical officer for the Navy in the South Pacific, for which he was awarded the Bronze Star.

He is survived by his wife, Jean; a daughter, Martha; and a son, Paul.



Maurice Ross, M.D.

Dr. Maurice Ross '40 died Sept. 22 in Maine. He was 73. Dr. Ross was formerly chief of pediatrics at Webber Hospital in Biddeford, Maine, and was medical director of the York County Healthmobile. He was a former president of the New England Pediatrics Society, the Maine Chapter of the American Academy of Pediatrics and the Maine Chapter of B'nai B'rith. During World War II, he was a captain in the Army Medical Corps. Dr. Ross is survived by his wife, Eleanor Levy Ross; a son, James; a daughter, Mrs. George (Nancy Ross) Viles; two brothers, Philmore Ross and David W. Ross; a sister, Mrs. Leon (Sylvia) Manheimer; and two grandchildren.



Dr. John C. Gallagher

John C. Gallagher, M.D.

Dr. John C. Gallagher '58 died July 22 in Naples, Fla. He was 55.

Dr. Gallagher took his postgraduate training at Yale-New Haven Hospital, the pathology department of the School of Medicine and the Veterans Administration Medical Center in West Haven. He served as a pathologist at the U.S. Naval Hospital in Philadelphia and went on to the Armed Forces Institute of Pathology in Washington, D.C. In 1968 he became chief for the section of anatomical pathology and assistant chief of laboratory service at the Veterans Administration Medical Center in Bay Pines, Fla., and later was pathologist for the medical examiner's office in Largo, Fla. Dr. Gallagher was a resident and research associate at the Office of the Medical Examiner in Calgary, Alberta, Canada from 1985 to 1986, researching sudden infant death syndrome.

Dr. Gallagher was a fellow of the American Society of Clinical Pathologists and of the College of American Pathologists.

He is survived by his wife, Susan Brailsford Gallagher; his son, James Harrison Roswell; and his parents, J. Roswell and Constance Dann Gallagher.

Donations may be made to the John C. Gallagher Scholarship Fund through the Medical School Alumni Fund.

Francis A. Spellman, M.D.

Dr. Francis A. Spellman '43, died July 2 in his home in Augusta, Maine, after a long illness. He was 69.

Dr. Spellman served as captain in the Army Medical Corps during World War II and later became chief of gastroenterology at the Veterans Administration Hospital in Togus, Maine. In 1972 he was appointed assistant chief of medicine at the VA Hospital and served in the position until his retirement in 1986.

He is survived by his wife, Constance (Hale) Spellman; two sons; two daughters; a granddaughter; and a sister, Catherine Morrill.



IN MEMORIAM

Harry H. Gordon July 20, 1988	'32 HS
Allan V.N. Goodyer August 20, 1988	'42 M.D.
Francis A. Spellman July 2, 1988	'43 M.D.
James F. Cooney April 18, 1988	'46 M.D.
John C. Gallagher July 22, 1988	'58 M.D.
Mohammed Sadri December 29, 1987	'59 M.P.H.
Warren A. Hinchliffe April 1986	'68 HS
John F. Brix, Jr. July 8, 1985	'69 HS

'73 M.P.H.

James R. Rice

November 1, 1985



Memorials

Deceased medical alumni and friends may be memorialized by a gift at any time to the Medical School Alumni Fund endowment in the name and class of the person so honored. The next-ofkin of a deceased medical alumnus/a is advised about this In Memoriam Program by a mailing from New Haven some weeks after the School of Medicine receives notification of the death. The letter of information includes a copy of the Testament of Remembrance in which the names of all persons so memorialized are listed in the medical section by class, thus establishing a lasting memorial. Donors receive a personally penned note of appreciation from the In Memoriam program director. Your inquiries and interest are welcome.

Deceased alumni and friends so honored in 1987-88 were:

Waldo Desmond '25 Henry I. Fineberg '27 Julius Weiner '29 Vincent Doroszka '30 Francis Guida '34 Edward T. O'Donnell '34 Russell Nahigian '39 Patrick Mullins '42 Jonathan Lanman '43 Reuben Zucker '44 James Cooney '46 Charles S. Judd, Jr. '46 Richard H. Mann '46 Hugh R. Williams '46 **Bov Frame '48** 1950 Deceased Classmates Peter B. Livingston '63 Bruce S. Schoenberg '68 John F. Neil '73 Carolina De Hostos

Richard G. Jordan Director, In Memoriam Program

ALUMNI NEWS

Dr. H.M. Zimmerman '27, will travel to Kyoto, Japan, in September 1990 to lecture on "The Neuropathologists of the 20th Century" for the XIth International Congress of Neuropathology.

Dr. Joseph Criscuolo '38, is medical director of the Urgent Care Clinic in Palm Springs, Calif.

Dr. Morris Wessel '43, was one of four panelists at the first Writers Symposium for Physicians sponsored by the American Society of Journalists and Authors and New York University Medical Center on Oct. 29. The symposium helps physicians communicate effectively with and educate the public through lay magazines, newspapers, radio and television. Dr. Wessel is practicing pediatrics in New Haven and wrote *Parents' Book for Raising a Healthy Child*.

Dr. Jean McMahon '44, of Englewood, Colo., retired as chairman of development and evaluation at the Children's Hospital and as clinical professor of pediatrics at the Colorado Health Sciences Center, effective October 1986.

Dr. J.E. Neighbor '44, has semiretired in Walnut Creek, Calif., to an office practice three days a week.

Dr. Sidney S. Feuerstein '45, was invited to be a guest lecturer at the European Society of Facial Plastic Surgery in Barcelona, Spain, Oct. 23 to 26.

Dr. John P. McGovern '46 HS, founder of the McGovern Allergy Clinic in Houston, Texas, has been named an honorary member of the Alumni Association of the University of Texas Medical Branch at Galveston. His is the second award bestowed since the institution was established 97 years ago. He serves as adjunct professor of history and philosophy of medicine in the Institution for the Medical Humanities. For four years, Dr. McGovern chaired the board of regents of the National Library of Medicine and presently serves on the National Advisory Council for Alcohol Abuse and Alcoholism.

Dr. Amoz I. Chernoff '47, retired as director of the division of blood disease and resource at the National Institutes of Health in April. During his 10 years at the NIH, Dr. Chernoff was the primary architect for hematologic programs in sickle cell disease and thalassemia, thrombosis and hemostases and transfusion medicine. Dr. Chernoff is now consulting in the Washington, D.C. area and serving as director for scientific affairs for the American Association of Blood Banks, where he hopes to assist in developing transfusion medicine into a major medical specialty.

Dr. Benjamin F. Rush '48, became president of the Academy of Medicine of New Jersey on May 25. Dr. Rush, of Summit, N.J., is professor and chairman of surgery at the University of Medicine and Dentistry of New Jersey.

Dr. Eugene Sillman '49-'54 HS, served in the Peace Corps as a medical officer for Central Africa from 1979 to 1981. In 1982, he became medical director of the Erie County Department of Health in Buffalo, N.Y., a position he filled for five years. Dr. Sillman is now the director of preventive health services for that department and also serves as a clinical assistant professor of medicine at the University of Buffalo.

Dr. Fred Ackroyd '55 HS, of Boston, Mass., is president of Health Data Consortium and associate professor at Harvard Medical School.

Dr. A. Robert Crawford '55, is administrator at the Methodist Retirement Community in Durham, N.C. Dr. Crawford is a member of the American College of Health Care Administration and a fellow of the American College of Health Care Executives.

Dr. Greg Peterson '55, of Naples, Fla., retired from practice and as president of the Windham Urology Group in September.

Dr. Clement B. Sledge '55, chairman of orthopaedic surgery at the Brigham and Women's Hospital in Boston, was re-elected to the board of directors of the American Academy of Orthopaedic Surgeons (AAOS), the largest medical organization for musculosketal specialists. A past

president of the AAOS, Dr. Sledge has served on the board since 1983 and chairs the AAOS Committee on Planning and Development. He also serves as a consultant in orthopaedic surgery at Massachusetts General Hospital, New England Baptist Hospital, West Roxbury Veterans Administration Hospital, Beth Israel Hospital and the Children's Hospital Medical Center.

Dr. Seymour M. Glick '56-57 HS, has been in Israel since 1974 and currently is the dean of faculty of health sciences at Ben Gurion University in Beer Sheva.

Rear Adm.William M. Narva '56, vice president of Uniformed Services University School of Medicine in Bethesda, Md., has been reassigned by the Navy to head the Office of Attending Physician for the U.S. Congress.

Dr. Daniel M. Divack '56-57 HS, has a private obstetrics and gynecology practice in Bayside, N.Y. He also is an assistant clinical professor at SUNY in Stony Brook.

Dr. Louis V. Avioli '57, the Shoenberg Professor of Medicine and director of the division of bone and mineral diseases and endocrinology at Washington University School of Medicine, was presented the William F. Neuman Award for "distinguished achievements in the field" at the 1988 annual meeting of the American Society of Bone and Mineral Research. In 1982, Dr. Avioli was elected to the American Association for the Advancement of Science, and to the Council of the American and International Endocrine Societies in 1985. In 1987, he received both the honorary title of professor of medicine and endocrinology from the University of Madrid and the American College of Nutrition Award for outstanding research in bone and mineral metabolism.

Thomas P. Weil '58 M.P.H., will be honored with a professorship in his name at the University of Missouri-Columbia, where he served as professor and director of the graduate program in health services management for five years. For the past 17 years, Dr. Weil has been a health care consultant from his office and residence in Asheville, N.C.

Dr. Cooke Retires From SUNY Buffalo

Dr. Robert E. Cooke '44, '44-46 '50-51 HS, retired in June from his positions as pediatrician-in-chief at Children's Hospital of Buffalo, N.Y., chairman of the department of pediatrics SUNYAB School of Medicine, the A. Conger Goodyear professor of pediatrics, and medical director of the Robert Warner Rehabilitation Center. He will move to Florida with his family.

Dr. Cooke is a national consultant to the March of Dimes, the National Institutes of Health and has served as chairman of the Scientific Advisory Committee of the Joseph P. Kennedy Foundation for 25 years. An expert in child health, he developed a foundation for fluid therapy and invented the iontophoresis sweat test for the early diagnosis of cystic fibrosis, still in use today.



Dr. Robert E. Cooke is a national consultant to the March of Dimes and the National Institutes of Health.

During his tenure as professor and chairman of pediatrics at Johns Hopkins School of Medicine, Dr. Cooke established its training program. At Johns Hopkins and the Children's Hospital of Buffalo, he developed model service programs for poor children in East Baltimore and Buffalo and established the University Affiliated Facilities for the mentally retarded and developmentally disabled, which he personally proposed to and had accepted by President John F. Kennedy in 1961.

Dr. Cooke served as a member of the Transition Task Force for President Kennedy, which proposed the National Institutes of Child Health and Human Development and the Maternal and Infant and Children and Youth Programs.

In recognition of his research, the Children's Hospital of Buffalo is naming its new genetics laboratory "The Robert E. Cooke Genetics Laboratory," and the State of New York presented Dr. Cooke with its Lifetime Achievement Award at the time of his retirement.

Dr. Leon G. Smith '59-62 HS, is director of medicine and chief of infectious disease at St. Michael Hospital and professor of medicine and public health and preventive medicine at New Jersey Medical School.

Dr. David W. Brook '61, associate clinical professor of psychiatry at the Mount Sinai School of Medicine, has been elected to the executive council of the New York County District Branch of the American Psychiatric Association.

Dr. Stephen C. Joseph '63, New York City Health Commissioner, was featured in *The New York Times*, Aug. 30. The article explained Dr. Joseph's fight for the city government to expand its efforts to prevent the spread of AIDS and to prepare for greater numbers of patients. He is chairman of the citywide AIDS Task Force, including hospitals and agencies outside of government, whose goal is to revise the strategic plan used to guide AIDS programs through 1991.

Col. Craig H. Llewellyn '63, retired September 1987 from the U.S. Army after 25 years of service, and was presented the Defense Distinguished Service Medal, the highest peacetime award given. Colonel Llewellyn is professor and chairman of military medicine and professor of preventive medicine and epidemiology at Uniformed Services University of the Health Sciences School of Medicine in Bethesda, Md. He has been re-elected secretary-treasurer of the American College of Preventive Medicine.

Patricia D. Mail '67 M.P.H., of Rockville, Md., has been appointed chief of AIDS Services Branch in the Human Resources and Services Administration/Public Health Services. The program oversees grants to cities with a high prevalence of HIV infection and helps set up systems of care with alternatives to hospitalization. She received a PHS citation for staff work on the interservice humanitarian mission to the South Pacific and Philippines in which PHS officers served on the U.S.N.S. Mercy, the Navy's newest hospital ship.

Dr. Jennifer Niebyl '67, was appointed professor and head of the department of obstetrics and gynecology at the University of Iowa College of Medicine.

Dr. Jerry Stolzenberg '68-70 HS, is chairman of radiology at the Miami Heart Institute and professor of radiology at the University of Miami School of Medicine.

Dr. Harry S. Holcomb '68, has resumed his practice of orthopaedic surgery with Eastern Shore Physicians and Surgeons Inc. in Nassawadox, Va. Dr. Holcomb completed fellowship training in foot surgery at Roosevelt Hospital in New York City and is specializing in foot and ankle problems.

Dr. J. Allen McCutchan '68, '72 HS, is associate professor of medicine in the infectious disease division at the University of California, San Diego. He is also director of a collaborative research group involving UCSD, University of California, Irvine, University of Southern California and Stanford University, coordinating clinical studies on AIDS.

Michael C.J. Carey '70 M.P.H., has been appointed dean of Barna Institute of Health Sciences in Ft. Lauderdale, Fla. Within the next year, Barna will become a college and is, therefore, expanding its library. They would appreciate hard cover book donations, especially in the health field. Books can be sent to: Barna Institute of Health Sciences, 1050 NE 5 Terrace, Ft. Lauderdale, Fla. 33304

Mohamed Ismail Johnson '71 M.P.H., is a consultant recruiting for the Islamic Medical Association of North America. He is a member of the International Association for the Study of Organized Crime and the U.S. Navy Memorial.

Dr. David N. Bailey '73, '77 HS, professor of pathology at the University of California, San Diego, became chairman of the department of

pathology on March 1 after having served as acting chairman for two years. Dr. Bailey continues as head of the division of laboratory medicine and director of clinical laboratories at UCSD. He is president of the Academy of Clinical Laboratory Physicians and Scientists and is a past president of the California Association of Toxicologists. He serves on the editorial boards of Clinical Chemistry and the Journal of Analytical Toxicology.

Dr. Ian B. Berger '74 M.P.H, of Houston, Texas, is director of Fostering Ophthalmic Care in Underdeveloped Sectors (FOCUS), an international agency supporting ophthalmic care and blindness prevention in developing countries.

Dr. Irl L. Extein '74, of Boca Raton, Fla., is the medical director of Fair Oaks Hospital, where he also directs the neuropsychiatric evaluation unit. He continues his research and writing in the areas of biopsychiatry and psychopharmacology.

The 1988 Ettinger Fellowship Award, given by the American Cancer Society, was received by **Dr. Israel Dvoretzky** '76-'78 HS. He is the first dermatologist from Connecticut to receive this honor for work with skin cancer. As part of this award, Dr. Dvoretzky received a 14-day fellowship to the Memorial Sloan-Kettering Cancer Center in New York, where he will become acquainted with techniques in cancer detection and skin oncology.

Dr. Howard K. Koh '77, assistant professor of dermatology, medicine and public health at Boston University Schools of Medicine and Public Health, has been awarded the Preventive Oncology Academic Award, a five-year \$350,000 award, from the National Cancer Institute. Dr. Koh received the award to support his research emphasizing early detection and prevention of melanoma/skin cancer.

Dr. Mark Smith '77, is chairman and associate professor of the department of emergency medicine at the George Washington University Medical Center.

Dr. Martin H. Beerman '78-79 HS, has a private practice in gastroenterology in Sandusky, Ohio.

ALUMNI NEWS

Dr. Charles J. Farrow '78-'82 HS and **Dr. Gary A. Krosin** '81 HS, opened their own diagnostic radiology practice, in Stuart, Fla., in June.

Dr. Steven M. Shoum '78, is director of anesthesiology at South Nassau Communities Hospital in Oceanside, N.Y. Dr. Shoum is guiding the use of the endotrachael tube on emergency victims of cardiac or respiratory distress to surrounding hospitals and police rescue squads.

Dr. Donald C. Simonson '78, '80-'83 HS, was appointed head of the section of clinical research at the Joslin Diabetes Center and assistant professor of medicine at Harvard Medical School in July 1987.

Theoharis C. Theoharides '78 Ph.D., '83 M.D., assistant professor of pharmacology and psychiatry at Tufts University School of Medicine, was presented the Special Faculty Recognition Award for the second consecutive year on May 18. This is the highest medical school award given by the graduating class to the faculty member who has demonstrated dedication to teaching, academic scholarship and the well-being of medical students. Dr. Theoharides holds faculty appointments in pharmacology, biochemistry and clinical pharmacology at Tufts and the Sackler School of Graduate Biomedical Sciences.

Dr. Fred Aronson '80 M.P.H., has been appointed assistant professor of medicine in the division of hematology-oncology at the Cancer Research Institute at the University of California, San Francisco Medical Center.

Robert V. Levine '80 M.P.H., has been elected president of the Metropolitan Health Administrators Association in New York City.

Dr. George L. Gaunt '82, director of the center for reproductive medicine in Charlotte, N.C., headed the team of physicians and scientists responsible

for the state's first twins born as a result of ultrasound in vitro fertilization. The technique uses an ultrasound-guided needle aspiration to obtain oocytes for subsequent fertilization in vitro, eliminating the need for general anesthesia and laparoscopy in the egg retrieval process.

Dr. Henry Jampel '82, of Baltimore has been appointed assistant professor of ophthalmology at the Johns Hopkins University School of Medicine.

Dr. Rise Jampel '82, is a fellow in dermatopathology at the Johns Hopkins University School of Medicine.

J. Mark Blue '84 PA, is a secondyear student at the East Carolina University School of Medicine, pursuing an M.D. degree.

Dr. Dan A. Oren '84, '88 HS, has started a medical staff fellowship at the National Institutes of Mental Health, working with Drs. Thomas Wehr and Norman Rosenthal.

Lisa Rabbott '85 M.P.H., is assistant vice president of quality assessment and risk management at St. Mary's Hospital in Waterbury, Conn. She is a board member of Connecticut Society for Hospital Risk Management and of Albertus Magnus College.

Dr. Cecile Windels '85-88 HS, joined Stamford Pediatrics Associates in Stamford, Conn., in July.

Nathan D. Wong '85 M.P.H., '87 Ph.D., of Orange, Calif., has been appointed assistant adjunct professor of medicine in the division of cardiology at the University of California, Irvine and serves as an epidemiologist for the preventive cardiology program.

Dr. W. Lee Bailey '86, will begin a cardiology fellowship at Cedars-Sinai Medical Center, Los Angeles, in July 1989.

Marie Roberto of Cromwell, Conn., has been appointed deputy commissioner for the State Department of Health Services. Ms. Roberto, previously the department's director of policy and community relations, will oversee the bureaus of health promotion, community health and health planning. She is a doctoral candidate in public health at Yale.

FACULTY NEWS

Dr. Irwin M. Braverman, professor of dermatology, was named the 1989 Marion B. Sulzberger International Lecturer by the American Academy of Dermatology. The lectureship, established in 1965, is sponsored by Miles Pharmaceuticals in West Haven, and offers a \$5,000 stipend. Dr. Braverman's major clinical and laboratory research activities are concerned with cutaneous T-cell lymphoma, microcirculation in skin, cutaneous aging and the ways in which skin reveals the presence of internal diseases.

Carolyn W. Slayman, Ph.D., professor and chairman of human genetics and professor of physiology, was selected as one of 21 recipients of the Wellcome Visiting Professorships in the Basic Medical Sciences for 1988-89. She will give several seminars at Wayne State University in Detroit, Mich. The annual awards, announced by the Federation of American Societies for Experimental Biology (FASEB) and the Burroughs Wellcome Fund, stimulate interest in the basic sciences and recognize eminent scientists in physiology, biological chemistry/molecular biology, pharmacology, pathology, nutrition, immunology and cell biology.

Dr. Leo M. Cooney Jr. has been reelected treasurer of the American Geriatrics Society. Dr. Cooney is the Humana Foundation Professor of Geriatric Medicine, chief of the program in geriatrics and professor of general medicine at the School of Medicine.

Dr. Myron L. Glucksman, associate clinical professor of psychiatry, was elected president of the American Academy of Psychoanalysis at the organization's annual meeting in Montreal. He was previously the academy's chairman of the committee on programs.

Rebeca Rico-Hesse, Ph.D., assistant professor of epidemiology and public health, has won the 1988 Charles C. Shepard Science Award, the Centers for Disease Control's preeminent science award.

Ms. Rico-Hesse's scientific publication, titled "Geographic

Distribution of Wild Poliovirus Type I Genotypes" and published in the journal *Virology*, was judged the outstanding scientific paper from among 1,117 manuscripts published in peer-reviewed journals by CDC authors in 1987. The papers were evaluated on their scientific merit and the significance of the work's impact on the CDC's mission.

Pravin N. Bhatt, Dr.P.H., M.P.H., senior research virologist in comparative medicine, is translating a collection of letters by Mahatma Gandhi. The letters were recently donated to the University by Vijayaben M. Pancholi, a student and close friend of the Indian leader, and will appear in a book that will also feature vignettes about Gandhi by Mrs. Pancholi.

David C. Ward, Ph.D., professor of human genetics and molecular biophysics and biochemistry, will direct a program project grant from the National Institute of General Medical Sciences that will bring the medical school \$223,000 annually for five years.

The research grant is a component of a National Institutes of Health effort to describe the genomes (the complete genetic endowment) of humans and model organisms such as yeast, fruit flies and mice.

Professor Ward will lead a team of researchers that will develop two new methods to physically isolate targeted fragments of human DNA that are too large to be studied by cloning. Both methods will use biotin-labeled nucleic acids as probes.

Dr. Howard Levitin, professor of medicine and former dean of students, has been named to the newly created position of medical director of the Yale Faculty Practice Plan. In this post, Dr. Levitin will coordinate the professional programs of the outpatient clinics that are included in the Faculty Practice Plan, established in 1981 to bring together administrative, management and financial activities of the full-time faculty physicians in the School of Medicine.

Dr. James L. Boyer, professor of medicine and director of the Liver Study Unit, has been awarded the Adolf Windaus Prize for his outstanding work in the field of bile acid research. The prize, a medal and cash award, is given every two years.

Dr. Boyer is also chief of the digestive diseases division in the School of Medicine and Yale-New Haven Hospital. He and his colleagues have elucidated the basic physiologic mechanisms by which the liver transports and excretes bile acids and forms bile. This major liver function has been poorly understood.

Dr. David F. Musto, professor in the Child Study Center, psychiatry and the history of medicine, led a 20-person delegation of American drug and alcohol experts to the Soviet Union in October. The two-week visit was sponsored by the Citizen Ambassador Program, a non-political, non-profit organization working outside of government to promote international understanding. The delegation that Dr. Musto was asked to lead met with members of several Soviet groups in Leningrad and Moscow.

Drs. Ebbert, Kaplow Announce Retirement

Two longterm medical school faculty members, Dr. Arthur Ebbert Jr. and Dr. Leonard S. Kaplow, have retired. Both physicians have been named professor emeritus by the Yale Corporation.

Dr. Arthur Ebbert Jr.



Dr. Arthur Ebbert Jr., professor of medicine, has worked with five medical school deans during his 35 years at the School of Medicine. He served as assistant dean, associate dean and the school's first deputy dean, and in the summer of 1987 relinquished his post as deputy dean. A native of Wheeling, W. Va., Dr. Ebbert received B.A. and M.D. degrees from the University of Virginia and joined the Yale faculty in 1953.



Dr. Leonard S. Kaplow

Dr. Leonard S. Kaplow, professor of laboratory medicine at the School of Medicine and a pathologist and chief of laboratory service at the Veterans Administration Medical Center in West Haven, came to New Haven in 1964 as assistant clinical professor of pathology and pathologist at the VA. During his career, he has served on numerous VA and National Institutes of Health committees. He also is a past president of the Association of VA Chiefs of Laboratory Services and the Histochemical Society. A New York City native, Dr. Kaplow received a B.S. degree from Rutgers University and M.S. and M.D. degrees from the University of Vermont.





Richard Flavell Chairs Immunobiology Section

The School of Medicine has created a new section of immunobiology and named Richard Anthony Flavell, Ph.D., an internationally known molecular biologist, as professor and chairman. He also will be an investigator in the Howard Hughes Medical Institute sponsored-research program at Yale. Professor Flavell comes to the University from Biogen Research Corporation, Cambridge, Mass., where he was president since 1982.

"Richard Flavell is a national and international leader in molecular biology and molecular immunology, and we are extremely pleased that he will direct our new program in immunobiology. He has made several seminal discoveries and will provide outstanding administrative and scientific leadership to the school's program in the exciting and expanding field of immunobiology," said Dr. Leon E. Rosenberg, dean.

"In creating the new section, Yale is stating clearly its view that a greater understanding of host defense systems is crucial to our capability to promote health and cure disease," the dean said.

Professor Flavell has distinguished himself as one of the two co-discoverers of introns in mammalian protein-coding genes. Introns are parts of genes that are spliced together to form operating messages that lead to the production of enzymes or proteins. He also has conducted significant work on the regulation of globin gene expression. He and his colleagues were among the first to use site-directed mutagenesis to analyze the effects such genetic changes have on cell function.

Since 1983 he has served as editor of the *Journal of Molecular and Applied Genetics*. Among his professional honors, Professor Flavell was elected a fellow of the Royal Society and a member of the Royal Institute of Great Britain.

Geriatrics Physicians Win Research Awards

The American College of Health Care Administration named Drs. Ronald L. Miller and Mary E. Tinetti as joint recipients of its 1988 Research Award. They were honored in April at ACHCA's annual convocation in Cincinnati, Ohio.

Both Drs. Miller and Tinetti are physicians on the staff of Yale-New Haven Hospital. Dr. Miller is assistant clinical professor at the School of Medicine, as well as medical director of the Dorothy Adler Geriatric Assessment Center and associate director of the continuing care unit. Dr. Tinetti is assistant professor at the School of Medicine, associate director of the continuing care unit and an attending physician in the geriatric assessment center.

Among their many studies, Drs. Miller and Tinetti have tracked the progress of patients in Connecticut from acute-care hospitals through admission to long-term care facilities and return to the local community.

Dr. Bunney Named Psychiatry Chairman

Dr. Benjamin S. Bunney, an internationally known neuropsychopharmacologist, had been named chairman of the psychiatry department at the School of Medicine and chief of psychiatry at Yale-New Haven Hospital.

Dr. Bunney, selected after an extensive national search, has been acting chairman and chief of psychiatry since mid-September 1987. He also is professor of psychiatry and of pharmacology at the medical school and a consulting psychiatrist at the Veterans Administration Medical Center in West Haven.

Dean Leon E. Rosenberg commented, "Dr. Bunney possesses outstanding skills to lead this large and complex department. The biomedical research that he has conducted is seminal. His psychiatric knowledge and vision will enable him to continue the excellence for which this department is known nationally and internationally."



Dr. Benjamin S. Bunney

Dr. Bunney's research career has centered on the brain's dopamine system, which has been implicated as a part of the major neuronal dysfunction in schizophrenia. His work has included pioneering research on the neurophysiology of the brain's dopamine system and on the site and mechanism of action of antipsychotic drugs.

Dr. Bunney has conducted all of his research at Yale, where he has been a member of the School of Medicine faculty since 1971. He was named professor in 1984 and vice chairman in 1986.

The department that Dr. Bunney will lead is one of the largest in the School of Medicine, with 92 full-time faculty members and 90 residents-in-training.

Two Faculty Elected To Institute of Medicine

Members of the Institute of Medicine have elected Dr. Donald J. Cohen '66, director of the Yale Child Study Center, to membership and Aaron B. Lerner, M.D., Ph.D., professor of dermatology, to senior membership in the institute.

Chartered in 1970 by the National Academy of Sciences, the institute advises the federal government regarding medical care, research and education.

A child psychiatrist and psychoanalysist, Dr. Cohen joined the School of Medicine faculty in 1972 and has been director of the Child Study Center since 1983. He also is the first Irving B. Harris Professor of Child Psychiatry, Pediatrics and Psychology.

His clinical and research activities have focused on autism and other serious neuropsychiatric disorders of childhood, and on stereotypic and tic disorders, such as Tourette's syndrome.

Dr. Cohen has published more than 200 articles. Among his academic activities, he is co-director of the Yale Mental Health Clinical Research Center; vice president of the International Association of Child and Adolescent Psychiatry and Allied Professions; and a member of several editorial boards.

In 1986, Dr. Lerner relinquished the dermatology department chairmanship after serving for 30 years. Today, he continues to treat patients for a variety of pigment disorders. Throughout his career, Dr. Lerner centered much of his research on the biology of pigment cells. He and his colleagues have isolated and characterized melanocytestimulating hormone from the pituitary gland and melatonin from the pineal gland. They also have worked on treatments for melanomas, vitiligo and other skin diseases. Among his many awards and honors, Dr. Lerner was elected to the National Academy of Sciences in 1973.

Med Graduates Honor Year's Best Teachers

Five faculty and house staff members were presented awards as the best teachers of the 1987-1988 academic year by the 1988 School of Medicine graduating class:

- Dr. Asghar Rastegar, associate professor of medicine, and Arthur J. Viseltear, Ph.D., associate professor of the history of medicine and public health, shared the Francis Gilman Blake Award for the most outstanding teacher of the medical sciences.
- Dr. Laura R. Ment, associate professor
 of pediatrics and neurology, was
 presented the Leah Lowenstein Award
 for the medical school faculty
 member who most clearly provides
 positive images of women in
 promoting humane and egalitarian
 medical education.
- Drs. David Frank and Melissa Perkal won the Betsy Winters House Staff Award as Yale-New Haven Hospital house staff members who have made the most significant contribution toward the education of medical students.

Two Surgeons Named Endowed Professors

Two distinguished surgeons have been named to endowed professorships at the School of Medicine. Dr. Bernard Lytton was appointed the Donald Guthrie Professor of Surgery, and Dr. Clarence T. Sasaki was named the Charles W. Ohse Professor of Surgery.

Dr. Lytton, who is also an attending surgeon at Yale-New Haven Hospital, served as chief of the urology section at the medical school, YNHH and the Veterans Administration Medical Center in West Haven, from 1967 to 1987.

Author of more than 100 articles and book chapters, Dr. Lytton serves on the editorial board of the *Journal of Urology* and is editor-in-chief of *Advances in Urology*, an annual publication. His clinical interests include prostate cancer, urinary stones, and bladder substitution following removal of the bladder for cancer.

Dr. Sasaki joined the Yale medical faculty in 1973 as an instructor and was named professor in 1982. As an attending physician at Yale-New Haven Hospital and a consulting physician at the Veterans Administration Medical Center in West Haven, he is an authority on the surgical management of head and neck cancer and disorders of the vocal cords. A winner of several research awards, his current research involves two areas: developing an electrical pacemaker for the vocal cords and pursuing an animal model for tinnitus.

A native of Honolulu, Dr. Sasaki received his M.D. degree in 1966 from Yale. He interned at the University of California San Francisco Hospital and took residency training at Dartmouth Medical Center and Yale-New Haven Hospital.



DEVELOPMENT REPORT



Dr. Samuel D. Kushlan '35 (right) exchanges quips with Terry M. Holcombe, the University's vice president for development and alumni affairs, and President Benno C. Schmidt Jr. (Photos by Michael Marsland)

On June 26, among the joyous sounds and bright colors of a Mexican fiesta, 500 people gathered on the courtyard of the Edward S. Harkness Memorial Hall to celebrate the success of the first major capital campaign in the School of Medicine's 178-year history. Dean Leon E. Rosenberg hosted the event at which donors, faculty members, alumni, students and staff heard University President Benno C. Schmidt Jr. join Dean Rosenberg in expressing gratitude for the support the school received from more than 7,000 individuals and from various corporations and foundations.

The School of Medicine raised \$155 million during the four-year campaign, surpassing its goal of \$125 million by 24 percent. These funds will increase the endowment, help meet research and

program needs and provide for new and renovated facilities.

President Schmidt stated, "These are exciting times at the school, times of growth and renewed confidence in the fundamental importance of medical education within a university community... The Campaign for Yale School of Medicine is helping to sustain the spirit and determination and the record of accomplishment which have made many recent achievements and enhancements possible. Its success is a success felt throughout the University."

President Schmidt added that the campaign has helped the School of Medicine strengthen its programs, secure the excellence of its facilities and enhance the vigor of the medical profession as a whole.

Dean Rosenberg added, "This infusion of funds will move Yale medicine forward on many fronts that will lead to new discoveries in our understanding, diagnosis, treatment and prevention of human disease.

"A direct link exists between the level of financial resources and the speed of progress in medicine. We already are seeing the scientific benefits of the success of this campaign, and these advances will inspire others to seek new answers."

The School of Medicine officially launched the capital campaign in May 1985 with \$32 million in gifts and commitments in hand. The campaign followed a two-year study by a faculty committee on the future of medicine at Yale. Chaired by Dr. George E. Palade, Nobel laureate and Sterling Professor

Emeritus of Cell Biology, the committee defined broad areas for the School of Medicine to advance biological knowledge and translate it into preventive, diagnostic and therapeutic applications.

During the past four years, the School of Medicine has garnered support in the following areas:

- \$88 million for biomedical research programs in child psychiatry, clinical epidemiology, dermatology, gene structure and function, gerontology, infectious diseases, molecular neurobiology, molecular oncology, neurological disease, neuropsychopharmacology, clinical pharmacology, parasitology and tropical medicine, and pediatric medicine.
- \$37.7 million for facilities and equipment, including funds to build the Center for Molecular Medicine, where scientists from various disciplines will develop molecular approaches to biomedical problems. The funds will also be used to modernize laboratories and support facilities and to expand and renovate the medical library—a significant resource for students, physicians and scholars worldwide who use the collection of 350,000 volumes and 2,500 journals.
- \$29.7 million for endowment, both for endowed professorships awarded to distinguished faculty members and for unrestricted funds toward school activites.

However, in spite of these new endowment funds, the School of Medicine remains under-endowed in comparison with its peer professional institutions, according to Dean Rosenberg. "Raising funds for endowment will continue to be a priority second to none for the medical school," he said.

Dean Rosenberg saluted members of the National Volunteer Committee, the faculty and the school's alumni, who worked on the campaign. The late James G. Hirsch, M.D., and Frank A. Sprole, LL.B., chaired the National Volunteer Committee which included: A. John Anlyan, M.D.; William Anlyan, M.D.; Leona Baumgartner, M.D., Ph.D.; George A. Carden Jr., M.D.; Charles C. Kinglsey, LL.B.; William L. Kissick, M.D., M.P.H., Dr. P.H.; Sidney S. Lee, M.D., M.P.H., Dr. P.H.; Vernon R. Loucks Jr., M.B.A.;

Walter J. McNerney, M.H.A.; John B. Ogilvie, M.D.; Maxine F. Singer, Ph.D.; Ora Kingsley Smith, M.D.; and Nicholas P.R. Spinelli, M.D.

Dr. Samuel D. Kushlan, clinical professor of medicine, and Dr. Paul G. Brash, professor and chairman of anesthesiology, co-chaired the solicitation of the faculty. Contributions from faculty and staff totalled \$2.7 million. Dr. Ogilvie, a retired surgeon who lives in Riverside, Conn., directed alumni solicitations. Medical alumni contributed \$10 million to the campaign.

While acknowledging that the School of Medicine is now on firmer financial ground that it was four years ago, both President Schmidt and Dean Rosenberg confirmed that much work lies ahead to maintain the momentum achieved by the campaign.

The University and school will continue to work to obtain continued support from those who wish to perpetuate the School of Medicine's world leadership as a biomedical research and training institution, as well as a top clinical center.

Dean Rosenberg concluded, "We must move forward immediately to meet other needs, such as those in microbiology, public health and AIDS research. I have already reconstituted the Development Advisory Committee, and this group of senior faculty will work with me during the months ahead to analyze this campaign and to revise our priorities. And in this way will we be prepared for the 21st century."



The Dean and the President celebrate.

REUNION 1988



For the Class of '38 and their spouses, 50 years ago seemed like yesterday. (Photos by Bill Carter)

When the spring weather in New England is perfect: sunshine, crystalline unpolluted air (dry and delicious), attendance at school classes used to be at risk, as memory serves. Such a weekend last June 10 and 11, however, did not deter more than 500 alumni and other guests from attending the many talks and seminars of Reunion 1988 at the medical school.

Friday afternoon saw the unofficial beginning of activities with the three superb class "reminiscence seminars" presented by the 45th (1943 March and December), 30th (1958) and 25th (1963) reunion classes. The emphasis was on time and change as perceived by each class. Classmates especially enjoyed the shared insights, but the dozen medical students who sat in also showed great interest. (The students

were greatly helpful throughout the weekend and were lively guests at some of the parties and dinners).

Special thanks are due Drs.
Dorothea Peck, Lycergus Davey, John
Brobeck, Robert Bradley of 1943; Drs.
Mike Kashgarian, Gerry Burrows and
Andy McGowan of 1958; and Drs.
Alex Gaudio and Craig Llewellyn of
the Class of 1963. Alex also served as
general chairman of the entire reunion
planning committee.

The reunion was launched officially at 4 p.m. by the president of AYAM, Dr. Dwight F. Miller '56. Dean Leon E. Rosenberg introduced University President Benno C. Schmidt Jr. who for the first time greeted our assembly. He praised the developments and initiatives at the medical school and tied its expanding profile to the prestige

of the University locally, nationally and internationally.

Associate Dean Myron Genel introduced our keynote speaker, Dr. Robert Petersdorf, Class of 1952, president of the Association of American Medical Colleges. Dr. Petersdorf offered a dynamic view of problems that face medical education today. He touched on curriculum content, duration of the educational process, a diminishing applicant pool, rising costs of education and their effect on career choices, and the ethics of reporting research data. His comments provoked lively audience questions and discussion. The dean's reception and special class

parties followed. For returnees who had

held at Harkness dorm.

Due to popular demand, the traditionally superior contributions of our faculty were expanded to include two series of seminars. In the first, the rapid evolution of the molecular biology of genetics was described, both in the laboratory and in clinical applications. Dr. Maurice J. Mahoney moderated this panel, with excellent presentations by Drs. Margretta Seashore and David Ward. They discussed the mapping of the human genome and the evolution of DNA probes in clinical medicine.

Dr. John Fenn '61, HS '61-67 moderated an update of the growing challenge of AIDS at Yale-New Haven Hospital from the administrative, clinical, socio economic and community perspectives. Drs. Frank Bia and Walter Hierholzer '61, HS '61-68 were members of this panel.

To conclude the first seminar series, the department of neurology presented a review of advances in molecular pathophysiology in the research labs at Yale. Department Chairman Stephen Waxman was a speaker and moderator. The panel comprised Drs. James Prichard and Richard Mattson. Emerging understanding of molecular physiology in clinical areas of CNS trauma, degenerative diseases and epilepsy revealed the great era of growth in knowledge and treatment promised in this field. The researchers also described the exciting contributions of nuclear magnetic

resonance to visualizing metabolic disorders of the CNS.

The second seminar period featured a symposium on the "Management of the Medical Industrial Complex," moderated by Professor William L. Kissick, M.D. '57, Dr.P.H. '61. As our institutions of health care delivery have undergone convulsive changes in management approaches during the past decade, the structure of management has seen examples of the physician, the nurse and the public health professional as its managers. Addressing the assembly were John Thompson, professor emeritus in the department of epidemiology and public health; Dr. Helen Smits '67, director of John Dempsey Hospital at the University of Connecticut; and David Bailey, M.P.H. '67, executive director, the McLean Fund, Simsbury, Conn., describing extended care challenges and public health administration.

The sherry hour and our traditional Saturday buffet at Harkness lounge has been a favorite of the reunion weekend. At no other time can easy communication among all classes, and with faculty and administration, be as effortless and effective.

Saturday afternoon provided the usual variety of activities. Tours of new hospital and medical school facilities, of the museums and undergraduate campus, and of historic and changing modern New Haven are increasingly popular. The Alumni Fund volunteers met as usual. Saturday afternoon has

always been, as well, a time for lazy retracing of old steps in the oncefamiliar environment, a time for nostalgic rediscovery with old friends.

On Saturday evening, the reunion weekend reached its usual zenith of camaraderie with updates among classmates at the class reunion dinners. The class wits resumed old roles, and messages from classmates unable to attend were read. Synopses of these will be mailed to every classmate by the alumni office.

The celebration for the 50th reunion, the "Friends of the 50th," continues to flourish and grow. Ten classmates of the Class of 1938, with Charles Petrillo as master of ceremonies, were present, and there was a banner group of 21 returnees from the Class of 1983 celebrating their fifth reunion.

Dr. Gary Pickett '44, once more volunteered to moderate the program. His wit, recitation of campus changes and recollections of old faculty were as humorous and entertaining as at the first "Friends of the 50th" dinner in 1983, when Larry again had been host. Incidentally, Dr. Franklin Foote '33, secretary of the first event, was present at this dinner as well, celebrating his 55th.

Judy Melin '83 worked hard as class secretary, having audited last year's reunion to "see how they were programmed." Co-secretary Dave Halfgott '83 commented on the similarity of the clinical challenges of the two generations: "We are still challenged by infectious diseases--we by AIDS--you in your day by TB and endocarditis." *La plus ça change...* The intergenerational reunion dinner is becoming a warm and rewarding affair.

The alumni office was especially grateful for the help of the eight freshmen of the Class of 1991: Daniel Saal, Carl Henningson, John Phillips, Ellis Webster, Paul Isenbarger, Michelle Griffith, Liz Roth and Daniel Fitzgerald. Of the Class of 1989, Anita Goodrich, Margorie Scharoun and Lisa Ouattrocki also served. Five of the above attended the "Friends of the 50th" dinner. Increased participation and attendance by students at reunions will be pursued. Intercommunication is enjoyed by both groups; there is no barrier in age; doctoring creates interesting bonding!

A GOOD REUNION!

Dr. Nicholas P.R. Spinelli '44 Director of Alumni Affairs



Sobering alumni seminar: "Managing the Medical Industrial Complex"

REUNION REPORTS

1938

50th-year Reunion by Dr. Charles J. Petrillo

The Class of 1938 returned for its 50th reunion to a vastly changed medical complex. A busy and excellent program of lectures, seminars, receptions, luncheons and tours had been arranged by the alumni office. Saturday evening, at the Graduates Club, the "Friends of the 50th" dinner (honoring the Classes of 1933, 1938 and 1983) was hosted by the alumni association. Those present from the Class of 1938 were: **Rov** Barnett (Margaret); Joe Bliss; Ben Lyons (Blanche); Nelson Ordway (Jane); Charlie Petrillo; Jim Radcliffe (Elizabeth); Ed Roberge (Genevieve); Joe Reynolds; and Les Wallman (Elizabeth). Out of 20 living members, nine were present for a 45 percent attendance, of which we are justly proud. Each was allowed a twominute presentation to reminisce about the past 50 years: Of the nine, only one is still in active practice, although all are busy enough with various activities. A moment of silence was held for the deceased members. The alumni office, through the thoughtfulness of Nick Spinelli, sent flowers to our long-time secretary, Aggie Barlett, who was too ill to attend. To atone for cutting the speakers at the end of two minutes, Charlie would appreciate receiving detailed reports of your activities so that he can put together a newsletter. Also, let him know how you feel about an informal get-together next year.

1943 (March)

45th-year Reunion by Dr. Dorothea R. Peck

Wonderful weather provided an auspicious atmosphere for a memorable reunion weekend. Friday afternoon began successfully with a new program (brainchild of Nick Spinelli, director of alumni affairs. This was a series of short seminars, (richer in nostalgia than in science), with **Bill Davey** presiding and the following speakers: **Bob Bradley** (the only member of December '43 who participated), diabetes—from Dr. Peters' era to current treatment; **Brobeck**, review of physiology with a lament of the

abandonment of required labs for medical students; Soule, life at the Mayo Clinic; Weber, psychiatry over the years; Stonington showed a slide of four second-year students at a Navajo hospital; Davey, challenge to the imperial judiciary e.g. malpractice; Peck, plea for wider use of mammography; Wessel, humanistic memories of the department of pediatrics, notably Drs. Powers and Jackson. Don Dunphy planned to speak but suddenly had to cancel. Rocko Fasanella joined us on Friday.

The dean's reception and the buffet at Harkness dormitory that evening were delightful. We dined outside on the terrace with alumni from other classes. Some of us may have stayed on for the after-dinner dance.

Saturday's program was the usual one of faculty seminars, alumni association meetings and tours of Yale, the hospital and New Haven. Our Saturday night dinner at the Graduates Club was attended by 14 classmates and 12 wives. Again Bill Davey was a skillful and effective master of ceremonies. In addition to Bill and Artemis, the following were present: John Brobeck (Dorothy); Gerry Fountain (Polly); Len Kemler (Joan); Henry Markley (Mary); your humble secretary; Marcus Sanford (Mildred); Ted Soule (Florence); Hilly Spitz (Norma); Ollie Stonington (Anne); Fred Waldron (Polly): John Weber (Helen); and Morris Wessel (Irmgard). A very special reuner was Bob Turner, one of our British refugees. He comes from California and is as British as ever. Reg **Shephard**, visiting a daughter in Colorado, planned to come but was suddenly summoned home to England.

Many of those present are retired or emeritus (whatever that means), but five are still in practice. Most are still doing something connected with medicine. There is an amazing number of tennis players and one skier who also plays ice hockey. Letters from several absent classmates were circulated at the dinner. Abstracts of these and of the C.V. of those at the dinner will be mailed to all.

I hope the silent few from whom we never hear will be inspired to communicate. We were most fortunate, despite the war, to attend such an outstanding medical school. It is inspiring to watch its changes over 45 years, and to recognize how it has retained its vitality, inspiration and eminence. Hope to see more of you in five years at the 50th.

1943 (December)

45th-year Reunion by Dr. Donald Cooke

Four classmates and their wives showed at Mory's for a great catch-up gab fest. Tom Bucky and Fred Haddad are still in practice but "slowing down" and taking longer vacations. Joe Epstein, allergist, retired three years ago and enjoys traveling, usually to the Southwest. Bob Bradley did not show, but we hoped he returned safely to Beantown.

Between drinks, nine classmate letters were passed around the table. Most notable was **Don Seldin**'s, saying he received an honorary degree from Yale the previous week.

Congratulations Don. Phil Chase had a conflict with his 50th at U.Mass but gave news of Frank Spellman in Augusta, Maine, that he has not responded to chemo for an alveolar cell carcinoma of the lung.

Barney Hurlbutt's ob-gyn practice gave way to his first love, the piano, which he plays at a local supper club on weekends. During the week, the local hospice, ambulance corps and arts council benefit from his counseling.

Vic Hackney responds with regrets but gives no clues as to what is going on in his life with Gerry.

Dick Abbott leaves the screaming children of Natick, Mass., for a new house in Beverly Hills, Fla. He doesn't miss "Taxachusetts." Sounds like a vote for Bush.

Ben Robinson is shocked with only 33 classmates surviving. He retired five years ago from the Woodlawn Clinic in California after 31 years. He has seen, on rare occasion, the two Hanks, Jones and Bruyn. Golf, fishing and traveling are his bag—no longer the violin.

Tom Cook retired from general surgery receiving the accolades of Smyrna, Fla., for his community involvement. An enclosed newspaper photograph shows that time has been kind to Tom.

Norm Condit hung up his stethoscope after leaving the Air Force to become an "historian for the 300-year-old Condit family of America." A third generation Condit has just finished using the silver porringer that Norm received upon producing the first class baby in 1943. He recalls seeing the late Al Richardson in Hawaii as a successful orthopedic surgeon.

Bob Furman is building a home in Scottsdale, Ariz., so presumably he has said goodbye to Lilley. He is making

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Classmates of 1953 bask in the June sun during lunch.

plans to be at the 50th.

To all you good classmates who responded with letters and all who did not, make plans for the 50th now. It is a long way to come, but we at Mory's that night truly wished that we could have shared with many more classmates fragments of the past.

1944

44th-year Reunion by Dr. Nicholas P.R. Spinelli

Class secretary **Dr. Edith Jurka** circulated a reunion invitation to all classmates for reunion 1988 (in anticipation of our 45th in '89) with an invitation to her spectacular new home in Croton for Saturday evening and the YALE MEDICINE Fall/Winter 1988

remainder of the weekend. Those who attended observed her receive one of the three Distinguished Alumni Service Awards presented at the annual meeting of AYAM on Saturday, present by classmate Nick Spinelli himself a past recipient.

Present from the class over the weekend for reunion: the Frank Countrymans of Indianapolis.

Bettyann has been appointed an AYA delegate for the School of Nursing, which will bring her to New Haven thrice annually. Their family thrives, with son Philip ready to launch into family medicine in Indiana. The Bob Frelicks, Carol Goldenthal, Eli Marsh, the Larry Picketts and the George Corcorans appeared along the way, some joining Edith in Croton,

joined by Nick on Sunday. The Joe Massaros had to cancel when Millie fell ill. In general, all of us are in good shape with the 45th (and perhaps 50th?) good possibilities for us all. Larry Pickett helped Nick emcee the wonderful dinner given now for the 50th reunion class ("Friends of the 50th") sponsored by the alumni association.

Many unable to come sent greetings, including: Jerry Kaye of Phoenix, Ariz., (daughter Judy Kaye is playing the diva in the "Phantom of the Opera" on Broadway and won a Tony Award for her performance!) "See you next year," says Jerry. Tony Varjabedian is A-OK. Kay Hawley, just 14 days postop, is doing well. "PD" Dienes Taft is busy at the 50th at Radcliffe. Reese Matteson has a new grandson in Denver: "See you in '89." Howie **Hamilton**, just back from Japan meetings, retired outside of D.C. Ed Conway, busy with a wedding anniversary, sent his best. Cal Woodruff was on a trip to Alaska; he will see us next year. Best from Sally Prindle Sherwood. Warm, warm greetings come from Butch Felmly, with us in freshman year and back at Yale for M.D. in 1950, now retired in Florida. Jack and Flo Doherty had to cancel reunion plans so they could attend the wedding of their youngest. Even **Pete Humphrey** (retired) sent a note! He finds it too hard to walk from San Diego (but may be coaxed to come for 50th?). His wife is a Yale nurse '53.

Discussion about reunion next year rendered sentiment for a class "reminiscence session" with Bob Frelick (his extensive NCI oncology experiences offer superb material) and Tony Varjabedian (his extensive work for Armenian dissident support in Russia is fascinating). They are obvious speakers. Other volunteers?

Notes from Nick and Edith should be forthcoming. A fund to honor our three deceased classmates (a remarkably low record!): **Greenman**, **Spelman**, **Zucker** Scholarship Fund for current student aid is a possibility, but we shall poll.

1948

40th-year Reunion by Dr. Paul B. Koehler

The kickoff for our class reunion took place Friday evening, June 10, with an informal buffet dinner at the home of **Russ** and **Gail Barrnett** (New Haven, Conn.). Those in attendance were: **Vic**



The Class of 1948 strikes a pose for posterity.

Drill (Glenview, Ill.); Bob Lempke (Indianapolis, Ind.); Dave and Kayoka Morton (Pueblo, Colo.); Jerry and Amy Shapiro (Wellesley Hills, Mass.); John Morrison (Orange, Conn.); George Batten (Sacramento. Calif.); Bob and Marty Downie (Greenville, S.C.); Jack and Elaine Morris (San Bernardino, Calif.) An unexpected but very welcome guest was Ruth Kitson Lawson (Topeka, Kan.) Ruth was in New Haven to attend her class reunion at Yale School of Nursing. Many stories were exchanged and experiences recounted.

Our group increased on Saturday

evening, June 11, for dinner at Mory's. Newcomers included: Mary Lempke (Indianapolis, Ind.); Gerry Morrison (Orange, Conn.); Julie and Nancy Frieden (Larchmont, N.Y.); Bud and Esther Rowland (New York, N.Y.); Dick and Michelle Peterson (Stratford, Conn.); Ben and Norah Rush (Summit, N.J.); and Anne G. and Walter St. Goar (Brookline, Mass.).

The following six deceased classmates were acknowledged before dinner: Bob Maurer, Jim Leslie, Gabe Saviano, Bob Lawson, Al Green and Boy Frame.

Russ Barrnett conducted the

program after dinner and asked each classmate to summarize his/her 40 years of life and medical experience since graduation.

Formal messages to the class were summarized from Ruth Cortell (New York, N.Y.); Betty Fuller Elsner (Ester, Alaska); Hal Griffith (Chicago, Ill.); Dick Cote (Santa Rosa, Calif.); Sylvia Preston Griffiths (New York, N.Y.); and Al Bridge (Moreno Valley, Calif.)

Al Bridge did a commendable job on our class phonathon earlier in the year and provided current status reports on Lee Brown (Phoenix, Ariz.); Dick Buker (Chester, Mont.); Dick Hannah (Walnut Creek. Calif.); Jim Needham (Northridge, Calif.); George Rostel (Santa Rosa, Calif.); Ross Harcus (Greenacres, Wash.); and Gerry Nowlis (Seattle, Wash.)

Three graduates have chosen to become affiliated with the Class of '48, rather than '49. They are **Jock Bishop** (Minneapolis, Minn.); **Paul Goldstein** (Branford, Conn.); and **Al Fisk** (San Francisco, Calif.) **Hal Holman** (Palo Alto, Calif.) elected to retain connections with '48 and '49.

The two-day reunion had something for all. Seminars, lectures and receptions were informative and stimulating. The sherry and buffet luncheon provided by the school on Saturday noon was delicious and elegant.

In closing, many, many thanks to the 30 classmates who gave more than \$11,000 to the Yale Medical School Alumni Fund for this fiscal year. The fund provides loans and scholarships to deserving students.

1953

35th-year Reunion by Dr. Harold D. Bornstein Jr.

Our 35th reunion was graced by gorgeous weather, sunny and pleasantly cool. As we have done in the past, Maureen and I hosted dinner at our North Haven home on Friday evening. There were 21 of us deeply involved in conversation while enjoying Maureen's casserole: Vicky and Rex Conn, now near Philadelphia; Doe and Jim Dunn, who always trek up from New Jersey; Betty and Tom Gentsch, also regulars, from Miami and North Carolina; from Ithaca, Robin and Bob Hamlisch; Manhattanites Carol and Fred Lane; Bob Melnick of Scarsdale; Joann and Wick Potter of Wellesley; Puerto Ricans Leila and Jose Ramirez-

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Rivera; Ora and Howie Smith of New Haven, but soon to move to Manhattan and Nina and Bill Whalen from Willimantic. Maureen and I are pleased to offer this opportunity for an informal gathering.

On Saturday evening we were once again able to enjoy the elegant ambience of the Quinnipiack Club and its Board of Governors Room. The room was exquisitely decorated for our formal gathering. Unable to remain from Friday were Barbara and Irv Rosenberg from the Detroit area and Mary Ann and Fred Young of Lancaster Pa., in Amish country.

Following the superb dinner and a sinfully delicious dessert, each in attendance had an opportunity to share professional and personal activities. This time we had communications of varied length from Jack Doppman, Dave Holman, Al Keroack, Harvey Peck, Paul Quie and Bill Wilson, which I read to our group. As is customary, I went through the roster to have those present try to update us on the absent.

All of us in attendance look forward

days, and his efforts were much appreciated by all who attended the festivities.

Friday afternoon our class seminar featured Gerry Burrow ('58s contribution to "deaning") speaking on academic medicine and problems medical schools are facing in the '80s; Andy McGowan spoke about private practice, problems of malpractice insurance, career burn-out and the changing image of the physician. His talk was aptly titled "Realities, Then and Now." Mike Kashgarian compared our curriculum upon entering Yale in 1954 to that of 1987. What a difference! We all agreed how fortunate we were having so much unprogrammed time which helped us prepare for our careers.

Those attending the seminar included Joe and Angie Angelo and their daughter, John and Trudy Arnot, Bill Branscome, Bob ("implant those lenses") Donohue and Ms. Ellie, Stan and Debbie Harris, Ray Gaito, Dave O'Keeffe and his daughter Karen, and Ed and Roxie Socolow. Lois McGowan and Jeanie Kashgarian

E INC.

Setting off for a tour of the "new" New Haven. (Photo by Jeffery Wayne)

to returning in five years and those who sent letters plan to join us in 1993. Our absent brethren should book early for our 40th.

1958

30th-year Reunion by Dr. Paul Rudnick

The 30th reunion was a smash! Mike Kashgarian arranged a fabulous two

were there cheering for their spouses.

Cocktails at Harkness dorm followed these soul-searching talks where we visited with faculty members, including our own **John Strauss**, now a member of the department of psychiatry. Saturday morning featured talks by faculty, Dean Leon Rosenberg, Benno Schmidt, president of the University, and alumni, including Bob Petersdorf. A pleasant buffet lunch followed on the Harkness patio. Those of us who toured

the new Yale Physicians Building were very impressed.

More of our classmates arrived in time for the Saturday night dinner which was held in the President's Room at Woolsey Hall. John (Hawk) Creatura and Sheila, Larry (one-half his former size) and Reggi Dubin, Chuck and Joyce Kashima, Ted and Dorita Lieberman, Al and Judy Muggia, Ted and Eva Miller and their daughter, Dave (whose moustache gets longer), Pugh and Ginny, Bill and Dorothy Radcliffe, Bill and Joan Schlaepfer, Ray and Maria Turner, Jack and Pauli Wood, and yours truly "PR" and Sandra Rudnick. Phil and Adele Fazzone were eagerly expected, but much to our disappointment had a last-minute change of plans.

Each classmate said a few words about career and family and fond memories. Mike Kashgarian read letters from Lee Phillips, Don Duncan, Bob Diserens, Tom Mauro and Jack Merritt. It was wonderful hearing from them. Andy McGowan sadly reported the deaths of two classmates, Ken Jimenez and Roland Martineau. Such a warm, nostalgic, burgundy-flavored atmosphere pervaded the hallowed hall of Woolsey that everyone stayed for two hours after dinner. We shared stories and memories of the Class of '58. We all agreed it was a wonderful occasion, and we missed our classmates who were unable to attend. Andy McGowan has offered to write a newsletter in the future, so let's hear from you in response to his questionnaire.

1963

25th-year Reunion by Dr. Hal Kaplan

Nineteen alums of the Class of '63 reminisced through two days of seminars and dinners, culminating with a festive clambake at Amarante's. Fifteen more, unable to attend, participated with written communications that were shared by all Saturday night. These will be included in the "Class of '63 Multibiography" that will be sent to all members of the class this fall.

Extrapolating from the data available (in a very unscientific way), we estimate that members of the class have approximately 220 children (of whom only about 5 percent have attended or plan to attend medical school) and approximately 30 grandchildren.

Among those attending were **Art Ackerman**, still active in psychiatric practice in Princeton, N.J., and **John Conte**, directing efforts in AIDS research at the University of California at San Francisco as an infectious disease specialist.

Andy Edin is one of 10 internists practicing with a 25-physician group in Winona, Minn. Mike Fessel has given up his practice of internal medicine/gastroenterology to assume the mantle of chief of internal medicine and assistant medical director of Yale Health Services.

Dave Fram is living in the "planned community" of Reston, Va., and treating drug dependency and substance abuse patients in D.C., while Dave Fulmer continues to enjoy the private practice of internal medicine with his multispecialty group in Princeton, N.J.

Alex Gaudio, who along with Craig Llewellyn did all the work of planning and running the reunion, is practicing ophthalmology as a retinal specialist in Hartford. Alex (a new grandpa) left a few days after the reunion for Europe, starting a four-month sabbatical. Craig, now retired from the U.S. Army, continues to do the same work as a civilian, involved with military medical education and preventive medicine.

Peter Gregory is spending less time with clinical hepatology at Stanford and more time working in the dean's office as an assistant dean at Stanford Medical School. Ben Harris remains busy practicing rheumatology in Phoenix and extends an open invitation to anyone passing that way to stop and visit. Dave Holden is one of the many in a second career. He gave up pediatric practice and is now chairman of the department of family practice and professor at SUNY Buffalo, and a vigorous proponent for more undergraduate emphasis on primary care medicine.

Hal Kaplan still lives in North Haven and is medical director for a 12physician multisubspecialty internal medicine group with offices in Meriden, Cheshire and North Haven. Bill Lehmann and Bob Mueller have remained in Connecticut also, both on the staff of the Hartford Hospital, Bill is in ENT, and Bob is senior man in a four-physician pulmonary group. Sheldon Pinnell has spent most of his years doing collagen research and now sits as chief of dermatology at Duke. Jay Pomerantz is practicing adult psychiatry in Longmeadow, Mass., after an earlier career in "community psychiatry." His recollections of his



Dr. Helen Langner '28 (Photo by Jeffery Wayne)

dealings with local mental health boards and politicians were hilarious.

Peter Tishler is associate chief of staff and acting chief of medicine at the **Brockton West Roxbury Veterans** Administration Medical Center and loving it. Wife **Sigrid** (M.D. '64) is chief of oncology at Harvard Community Health Plan. Larry **Tremonti**, after a peripatetic career in internal medicine and infectious disease, is now on the managerial side, serving as vice president for medical affairs for Blue Cross/Blue Shield of the Florida HMO "Health Options." Helen Nanovick Walsh took a severalyear hiatus from medicine after many years of anesthesiology practice, and now is back in medicine, also with a new career, as staff physician at a residential center for mentally retarded adults in Massachusetts.

Not attending the reunion, but sending regards to all by mail were: Barbara and Ric Almond, practicing psychiatry in Palo Alto, Calif.; Miguel Alonso, in ENT practice and medical politics in Tampa, Fla.; Rick Back, doing general surgery in Hudson, N.Y.; Gordy Cohen, out of medicine, owning and operating a large and successful health care manufacturing company in Wallingford, Conn.; and Judy Davis, practicing psychiatry in Chicago. John Gennari is professor of medicine and director of the nephrology unit at the University of Vermont; Lee Goldberg practices

endocrinology in Miami Beach; Ed Lund is practicing pediatrics and administrating a group practice in Massachusetts; Herb Meltzer is professor of psychiatry at Case-Western Reserve, studying schizophrenia and depression; Joe Stevens is doing nothing (and loving it) at Big Sur, having retired from psychiatric practice in July 1987; **Lee Talner** is professor of radiology and chief of diagnostic radiology at the University of California-San Diego; Gary Van Galder is practicing urology in Kona. Hawaii; Jim Wepsic is in the private practice of neurosurgery in Boston; and **Jerry Winer** is professor of clinical psychiatry at the University of Illinois at Chicago.

1968

20th-year Reunion by Dr. Richard M. Morehead Jr.

Celebrating the 20th anniversary of their graduation, the globe-girdling Class of '68 met this summer on opposite sides of the country.

In New Haven, during the formal reunion at the medical school, the opening day program and dinner were attended by **Fiona** and **Ed Druy** (radiology; Washington, D.C.), **Ed Flynn** (general and vascular surgery; Lincoln, Mass.), **Paula** and **Dick Getnick** (ophthalmology; Waterbury, Conn.), **Rozella Knox** (general practice; Los Angeles, Calif.), **Richard Morehead** (radiology; Santa Rosa, Calif.), **Chuck Post** (ophthalmology; Ducksbury, Mass.)

Saturday evening, the Class of '68 had a cozy dinner together at Leon's in New Haven. By then, the Getnicks had departed for Paris and Dr. Post for Boston, so the class could all fit into one booth. The evening was enlivened by the surprise appearance of **Jerald Springer** who drove over from his home in Norwich, Conn., (where he is director of emergency service).

1968

West Coast Reunion by Dr. Donald O. Lyman

The West Coast reunion of the Class of '68 took place at the Domaine Chandon in the Napa Valley. This is the winery and restaurant of the Moet Company of France. (They make champagne.) Eleven people attended including: Peter and Barbara Egbert; Harmon and Edith Michelson; Gordon and

Joanne Sasaki; Richard Moorehead; Creed and Andree Wood; and Donald and Betsy Lyman. It turned out to be the hottest day on record, 103 degrees in nearby San Francisco.

We all had a good time and determined that we should do it again for the 25th, but arrange for it to be a two-day affair so folks from the East can come with family. We will try to arrange that with a one-year notice for the rest of the class.

1973

15th-year Reunion by Dr. C. Richard Boland

Several members of the Class of 1973 assembled at Blessings on the evening of June 11 to reminisce and swap stories. The group was rather select, in light of the large number of our class still residing in the New York-to-Boston corridor. These included Rick Young, Tom Sweeney, Jim Sullivan, Chris Kull, Midge Tripp and Rick Boland. All of those at the reunion looked none the worse for 15 years of wear (however, this may be why they came). Our memories were reasonably sharp, and we were able to identify the whereabouts of over two-thirds of the class. With a modest amount of letterwriting, we should be able to improve upon this.

It appears that the largest group of our classmates selected a career in internal medicine (at least 33). however, we have at least 13 surgeons, 10 pediatricians and seven psychiatrists among our ranks. For some reason, we had six gastroenterologists, six cardiologists, numerous other medical specialists and four pediatric cardiologists in the class. Unexpectedly, the surly and even antiacademic Class of 1973 may have as many as 30 full-time academic physicians still writing grants and papers, out of our class of approximately 85. These estimates may be low, as we were unable to identify the whereabouts of 24 in our class. A number of humorous recollections were exchanged, including the nicknames of the six Georges (Can you remember them?), the Olympic swimmer (and the person who challenged him to a race), and the members of the "Syndicate." Who was the hairiest member of the class? Who fell asleep the easiest? Whose research career involves an unnatural interest in pain? How many of the five original M.D.-Ph.D. candidates received their Ph.D.? Is it

true that 11 of our group have lived in the San Francisco Bay area since 1973? Is it just an ugly rumor that seven of our class are associated with Harvard Medical School? And, do we have enough? The answers to all of these and more will be revealed at the next reunion.

We were all shaken by learning that one member of our class, **John Neil**, died earlier this year.

A good meal was shared; however, all expressed a desire to have seen more of our classmates. We are hoping the next reunion will be somewhat less exclusive, and Rick Young has offered to make his yard in Guilford into a tent city next time to accommodate starving academics who might hitchhike back to New Haven for the reunion. At the very least, I would like to invite newsy letters from all of you.

1978

10th-year Reunion by Dr. Duke Cameron

The Class of 1978 celebrated its 10thyear reunion in New Haven, June 10th and 11th. Classmates and significant others who attended: Dave Cawthon, Duke and Claudia Cameron, Eric Einstein and Claudia Gross, Mark Finklestein, Stuart and Amy Forman, Nancy Good, Linda Hall, Jeff Hausfeld, Mike Lerner and Kirsten Jacobsen, Seth Powsner and Elizabeth Yen. Steven and Pamela Schick. Don Simonson and Marcia Testa, Carol Tacket and Mike Rogawski, Stan Tillinghast, Marcia Wade, John and Carol Wagner, and Jonathan Weinberg. In addition to the scheduled reunion events, special Class of '78 seminars were held at the Old Heidelberg and were well attended. Saturday night dinner at Peter Cheng's China Garden Restaurant was enjoyed by all and the leftovers were presented as a special alumni gift to the Class of 1979. Dinner was superior; however, the Class of 1978 does not support a grading system, even though it recognizes that evaluation is an important part of the dining process. Those who could not attend were missed and we hope to see them at the next reunion.

1983

Fifth-year Reunion by Dr. Judith Melin

A spectacular June weekend was the setting for the fifth reunion of the Class of 1983 in New Haven. Highlights of the weekend included the class dinner at the Graduates Club on Saturday



Can five years have flown by already?



Dr. Rob Bookstein '83, with his wife Marcia.

evening, together with the fiftieth reunion class, emceed by Dr. Pickett (who also greeted us during our orientation to medical school in September of '79) and including dignitaries, among them former Dean and Mrs. Berliner and Dr. Spinelli, alumni affairs director for the School of Medicine. Friday's convocation featured a keynote address by Dr. Petersdorf, and was followed by a welcoming reception in Harkness, where we met once again with Drs. Levitin, Donaldson, Gifford and Ebbert, among many others. Highlights of medicine at Yale, buffet luncheons and evening dinner-dances rounded out the official program.

Also on the program were pilgrimages to Louis' Lunch (hamburger heaven), Yorkside Pizza (pizza heaven), Gentree's, the M&T Deli, the strawberry picking patch, the (redone) Shubert Theater, the Medical Library (in the process of renovation), the medical school cafeteria (even the brownies are the same), the student bulletin boards (with the same signs—"return the microscopes," "sublet my apartment," etc.) Portions of New Haven have been spectacularly refurbished (notably theater row and parts of Chapel Street) and most portions are comfortably familiar—the Yale Co-op, the New Haven Green, the Yale Rep, Pegnataro's (new name, same store).

Classmates at the reunion included: Alan Bloom (ophthalmology practice, Rochester, N.Y.), Rob Bookstein (pathology research, University of California at San Diego and soon-to-be a father with Marcia), Elena Citkowitz (preventive cardiology fellow at Mass. General in Boston). Eliot Gelwan (staff psychiatrist at Cambridge Hospital, Cambridge, Mass.) with Lise, Gerri Goodman (ophthalmology fellow, now staff, at Johns Hopkins), Linda Grais (critical care fellow, now staff, at U.C. San Francisco), John Grober (on the way from West Haven VA to rheumatology fellowship at Ann Arbor) with Jackie, David Helfgott (infectious disease fellow at New York Hospital and soonto-be chief resident in medicine at New York Hospital), **Don Johns** (neurology staff at Johns Hopkins, and soon-to-be a father), Ana Lamas (completing fellowship at Johns Hopkins in allergy, soon-to-be a mother and staff allergist in Miami), Laurie Margolies (radiology fellow at Yale-New Haven) with Jason, Fred Martin (neurology at Yale-New Haven) and Cindy, Judy Melin (staff internist, Lahey Clinic, Mass.), Lois Morton (staff psychiatrist in Greenwich, Conn.) with Anthony, Elizabeth Nolan (emergency

physician, Coronado, Calif.), Dan Oren (completing psychiatry residency at Yale-New Haven, on the way to National Institute of Mental Health) with Jeanette, Alan Reznik (completing orthopedics fellowship in N.Y., on the way to sports medicine fellowship at U.C. San Diego) with Liz, Lenny Saltz (hem-onc fellow at New York Hospital), Laurie Schafer (staff psychiatrist, New Jersey), Mike Silverberg (anesthesiology resident at U.Penn) with Barbara, Dwight Stapleton (cardiology fellow at Univ. of Washington, Seattle) with Susan, Ken Takeshita (hematology staff, Yale-New Haven), Abby Van Voorhees (completing dermatology residency at Yale-New Haven, now at U.Conn., staff dermatologist).

News from classmates unable to attend in person, who sent information or called it in, is forthcoming in our newsletter. Send your information quickly to be included in the next mailing.

Special thanks to David Helfgott, co-secretary, for his help in planning and for a memorable speech at our class dinner.

And to Dr. Nicholas Spinelli and Connie Tolliver—thank you from all of us for making our reunion so special.

SPECIAL NOTICE REUNION 1989

Dr. Donald W. Seldin '43, '46 HS will be the keynote speaker at the alumni reunion program on Friday, June 9, 1989. Until his recent retirement, Dr. Seldin served for 35 years as the chairman of the department of internal medicine at Southwestern Medical School. During his tenure he saw the department's faculty grow from one member—himself—to 150 members, and the school's physical plant go from former army barracks to a sprawling, modern medical complex.

Please mark your calendar now and plan to attend Reunion 1989.



Dr. Donald W. Seldin

AYAM ANNUAL MEETING 1987

Dr. Dwight Miller '56, president of the AYAM, convened the 1988 annual meeting in Harkness Auditorium and greeted the reunion classes. Drs. Charles Petrillo and Nelson Orday as class secretaries of the Class of 1938 received a citation in honor of their 50th reunion. Ten of 25 living class members were in attendance. The Class of 1983, celebrating its first reunion, had 22 of 95 classmates attending, headed by secretaries Drs. Judith Melin and David Helfgott.

The 25th reunion Class of 1963 was saluted with special tributes to secretaries Drs. Craig Llewellyn and Alexander Gaudio, who had arranged a class seminar as well as the social events of their reunion. Nineteen class members attended the class dinner that night as well as other class events.

Vice President Tom Kugelman '60 assisted Dr. Miller in introducing the class officers of all reunion classes, except the 50th and 25th anniversary groups.

The "State of the School" report by Dean Leon E. Rosenberg was positive and inspiring, as it described the excellent caliber of our faculty, students and research initiatives. Progress in building projects was described, including ground breaking for the medical library expansion and the Yale Psychiatric Institute. The new Yale Physicians Building on Howard Avenue was dedicated a few months ago and the Center for Molecular Medicine will begin construction by year's end. On a sober note, the diminishing numbers of applicants to American medical schools was noted, though the quality of our students remains high. Special efforts to raise awareness of racial stresses among our black student and patient populations were receiving close attention, according to Dr. Rosenberg.

Special tribute to senior alumni/ae in attendance, including Dr. Helen Langner of the Class of 1923 and Dr. Maxwell Bogin of the Class of 1926, were delivered by Dr. Miller.

Chairman R. Leonard Kemler '43 presented the current report of the Medical School Alumni Fund, which monies are all targeted for student financial aid. Although last year's all-

time record was not achieved, the largest drop was in endowment giving, which last year was aided by factors in the economy. Funds for current student use were less diminished. Dr. Kemler thanked all class agents and alumni/ae for their generosity and work. Special efforts are in progress to achieve scholarship rather than loan mechanisms for student aid.

Dr. Edith Jurka '44 as chairperson gave the nominating committee report. New appointees to the executive committee include: Dr. Sanfurd Bluestein '46 and Dr. Warren Widmann '61. Renominated for second two-year terms were: Dr. Martin E. Gordon '46, Dr. Attilio V. Granata '77, Dr. Jerrold Post '60, Dr. Romeo Vidone '57. Delegates elected to AYA for three-year terms were: Dr. Kristaps J. Kelli '59, Dr. Marie-Louise T. Johnson '56 and Dr. Fredric K. Cantor '62.

Dr. Miller thanked for their services these delegates whose terms had expired: Drs. Ora Kingsley Smith '53, John Pastore '67, Edith Jurka '44, Mohandas Kini '65, Warren Widmann '61.

The Distinguished Alumni Service Awards for 1988 were presented as follows: William L. Kissick, M.D. '53, Dr.P.H. '61, presented by Dwight Miller '56; Dr. Richard W. Breck '45, presented by Dr. John Ogilvie '34; and Dr. Edith M. Jurka '44, presented by Dr. Nicholas P.R. Spinelli '44. A citation and Yale chair were presented to each.

The traditional buffet and sherry followed in Harkness Hall. Reunion for 1989 was announced for June 10 and 11, 1989.

Dr. Nicholas P.R. Spinelli '44 Director of Alumni Affairs

Association of Yale Alumni in Medicine

Dwight F. Miller, M.D. '56, *President*

Thomas P. Kugelman, M.D. '60, *Vice President*

Muriel D. Wolf, M.D. '59, Secretary

Nicholas P.R. Spinelli, M.D. '44, *Past President*

Executive Committee

Sanfurd G. Bluestein, M.D. '46 Joseph F.J. Curi, M.D. '64 Alexander R. Gaudio, M.D. '63 Martin E. Gordon, M.D. '46 Attilio V. Granata, M.D. '77 R. Leonard Kemler, M.D. '43 Dorothea R. Peck, M.D. '43 Jerrold M. Post, M.D. '60 Leon E. Rosenberg, M.D. Romeo A. Vidone, M.D. '57 Patricia A. Wanning, M.D. '40 Warren D. Widmann, M.D. '40

Representatives to the Association of Yale Alumni

Fredric K. Cantor, M.D. '62 James Q. Haralambie, M.D. '35 Gilbert F. Hogan, M.D. '57 Marie-Louise Johnson, M.D. '56 Kristaps J. Keggi, M.D. '59 Richard V. Lee, M.D. '64

R. Leonard Kemler, M.D. '43 Chairman Medical School Alumni Fund

DISTINGUISHED SERVICE AWARDS

William L. Kissick, M.D., Dr.P.H.

Your extraordinary career as a teacher, researcher, administrator and consultant in medicine and public health was foreshadowed by four degrees you received from Yale as a student 30 years ago. Your medical service to your country was to have its base since 1969 at the University of Pennsylvania, with your early appointment to full professorships in their School of Medicine, Public Health, Wharton School of Administration and School of Nursing. As distinguished was your service to our governments in health care in every administration in Washington since that time. Your skills were to provide consultation to universities and governments throughout the world as well.

Despite the awesome schedule of professional and academic activity that became your life, you provided a consultant and service presence on the campus at Yale University. Your wisdom and administrative skills provided assistance and advice to all areas of alumni activity including leadership roles with the Alumni Fund, the Association of Yale Alumni and Development. Your crowning accomplishment has been your election in 1987 as Alumni Fellow of the Yale Corporation. You have added thereby the imprimatur of Yale Medicine to the highest advisory group that guides the destiny of our distinguished University.

Your peer alumni honor you today. You are as distinguished and devoted a son as our school has graduated, and we salute you in mid-career. The "Kissick-Yale" legend continues to be written.

Richard W. Breck, M.D.

Your medical school years occurred during World War II, and as a leader in your class you have functioned as its Alumni Fund class agent since graduation. Two generations of subsequent graduates owe the ever-increasing funds raised for their education to your efforts, among others. Your creative ideas for raising the consciousness of alumni to student educational financial need has served several deans in their efforts to assist in this goal. In 1974 and 1975 you served as national chairman of the Yale Medical School Alumni Fund.

You have been a member of the executive committee of our association intermittently since 1963 and served in unexcelled fashion as its secretary from 1980 to 1986. Your cheerful availability and performance of the many tasks the Alumni Office repeatedly requested of you is legend. Your regular presence at alumni functions and the energy you inevitably bring suggests you are still in youthful mid-career in the giving of yourself to the needs of the Yale School of Medicine. Your school and your peers today say: "Thank you."

Edith M. Jurka, M.D.

When you graduated from the Yale School of Medicine 44 years ago, you began a professional journey in the practice of psychiatry in New York City and equally continuous service to your class, as its secretary and leader, and to your school in New Haven.

Your unparalleled dedication to your class began from the moment of your matriculation as a freshman and your affection and attention to your classmates promoted an esprit that was to make the Class of 1944 unique. Your lovely homes in Manhattan and Croton-on-Hudson throughout the following years became a kind of social annex of the medical school, not only at reunion and other times for your classmates, but at various events for Yale medical students, faculty and administrative officers as well.

Your efforts for the Association of Yale Alumni in Medicine include your function as secretary of its executive committee from 1974 to 1980. You have been its representative to the Association of Yale Alumni from 1984 until your service ends this month.

Your financial assistance to Yale medical students and to the school has been unwavering. You have been a model alumna, and your activity defined devotion. The association thanks you for extraordinary service to Yale.

School of Medicine Class of 1938

More than half a century had passed between the formal designation of medicine as a separate school of the University and your matriculation as students in 1934. You now achieve the milestone of 50 years since your graduation.

You were pioneers who witnessed the growing affiliation of a great school with one of the nation's great teaching hospitals.

You were privileged to study with some of the most respected scholars in the history of modern medicine, and were among the first witnesses to the emergence of our medical school as one of America's most outstanding.

You have contributed as clinicians, teachers and research scientists in what was to become an era of outstanding scientific medicine. Your stature in the annals of the grateful University remains undiminished. We salute you upon this significant anniversary.



Distinguished Service Award winners (from left): Dr. William L. Kissick, Dr. Edith M. Jurka and Dr. Richard W. Breck

1986-1987 ALUMNI FUND REPORT

From the Medical School Alumni Fund Chairman

As we review the results of the 1987-88 annual giving campaign, we point with pride that the average gift has increased from \$210 to \$219. We view with dismay, however, the fact that we have not increased our percentage of alumni participation, and that, for the first time in several years, we have had a decrease in the total amount of money pledged and contributed to the Medical School Alumni Fund. Whether it was the October stock market meltdown, the coincidence of the concurrent capital fund drive, or both of the above is still not clear.

We are not discouraged, however, and we are entering the 1988-89 season with high hopes. We intend to increase our percentage participation overall, and especially in the more recent classes. We congratulate those classes that have achieved 75 percent participation or more, and we plan to continue to publish a list of large donor classes regardless of the dollar amount raised.

A necrology is published in each issue of YALE MEDICINE and we invite you to make contributions in memory of your deceased friends and classmates through the In Memoriam program of the Medical School Alumni Fund.

To J. Roswell Gallagher, cochairman of the bequest and endowment program, to Samuel D. Kushlan, co-chairman of the bequest and endowment program and chairman of the former house staff program, to the class agents and their helpers who are so willingly doing the volunteer work and to the alumni/ae, former house officers, parents and friends who have given so freely, heartfelt thanks are extended from the staff at the medical school, the alumni fund office and especially from the students who are helped by the Medical School Alumni Fund.

Dr. R. Leonard Kemler '43 Chairman



Dr. R. Leonard Kemler



Message from the Dean

As I begin my fifth year as dean, it seems appropriate to look back as well as forward. As evidenced by the almost continual round of groundbreakings and dedications of recent months and nearly a score of new department chairmen on the scene, this has been a period of change and tremendous excitement regarding the future vitality of our medical school's teaching, research and patient care missions.

During this time, the continued commitment of Yale's medical graduates has been a source of pride and inspiration. During the past year, medical school alumni contributed \$522,698 through the Alumni Fund as unrestricted gifts which we have designated to provide urgently needed financial aid for our medical students. While this is somewhat below the preceding record year, it is still almost double the amount contributed four

years earlier and, moreover, was accomplished in the midst of the medical school's capital campaign to which alumni also pledged more than \$1 million.

I am indebted to the many alumni who have selflessly volunteered their talents and energies on behalf of the School of Medicine. The countinued success of the Alumni Fund is testimony to their efforts, in particular Alumni Fund Chairman Leonard Kemler, Bequest and Endowment Cochairmen Ros Gallagher and Sam Kushlan, and the members of the Alumni Fund board and various class agents. They have enjoyed the support of the Alumni Association, headed in recent years by Dwight Miller, and now to be led by Tom Kugelman. Finally, I would be remiss were I not to express my deep appreciation for the tireless efforts of Dr. Nicholas Spinelli, a loyal alumnus and director of alumni affairs. as well as the administrative talents of Ms. Claire Lauterback and members of the medical school development office, headed by Will Melton.

While the continued success of the Alumni Fund, as reflected in the sustained total contributions, is a source of gratification, it should be noted that the number of alumni contributing has not changed substantially during the past four years, representing slightly less than 50 percent. We often don't hear from this "silent" half of our alumni. I recognize that not everything we do will please all of our alumni all of the time, but I do hope that the vast majority of you are pleased with the accomplishments of the Yale School of Medicine and take pride in your alma mater's continued high standing among the ranks of American medical schools. If any of you have concerns, be they general or specific, regarding the school, and especially its educational and alumni programs, I encourage you to write and share those concerns. I cannot promise you in advance that we would agree, but I am certain that we would share a sense of attachment, commitment and affection for the Yale School of Medicine.

Thank you.

Dr. Leon E. Rosenberg Dean

Medical School Alumni Fund Class Participation

			86-87	1987	-88
	AGENT	TOTAL	% PART.	TOTAL	% PART.
1922 and pri		\$1,519	+00-	\$ 1,621	_
1923	William Cohan	540	100	592	100
1924	David Raskind	2,226	100	101,147	100
1925	Alice Whittier	825	60	2,442	56
1926	Maxwell Bogin	486	60	365	40
1927	Harry Zimmerman	1,995	89	4,451	78
1928	Lewis Scheuer	53,765	69	3,090	80
1929	Paul McAlenney	1,296	81	1,464	67
1930	J. Edward Flynn	16,262	71	20,961	71
1931	Michael D'Amico	1,274	71	1,329	64
1932	Henry Brill	14,039	60	3,588	52
1933	Franklin Foote	1,600	71	1,894	71
1934	John Ogilvie	4,210	71	4,302	69
1935	James Haralambie	17,020	59	6,391	55
1936	Frederick Post	4,239	29	3,082	32
1937	Wilbur Johnston	*6,013	67	1,364	50
1938	Nelson Ordway	1,036	63	* 5,472	80
1939	Rebecca Solomon	2,976	58	6,459	67
1940	James Ferguson	9,503	69	9,283	64
1941	Charles Cheney	17,008	75	2,665	57
1942	Walter Burdette	* 56,144	69	3,603	69
1943A	Dorothea Peck	5,406	72	*21,067	81
1943B	S. Brownlee Brinkley	2,815	69	*4,462	66
1944	Nicholas Spinelli	13,235	71	6,574	70
1945	Richard Breck	3,520	57	3,345	51
1946	Thomas Whelan	69,323	52	9,834	64
1947	W. Roy Breg	*12,700	69	4,810	54
1948	Paul Koehler	6,461	55	*12,238	60
1949	Daniel Elliott	4,034	55	3,540	58
1950	David Frucht	16,272	70	8,516	58
1951	Lowell Goodman	8,778	58	8,736	43
1952	Harvey Young	*11,320	65	5,086	39
1953	Vincent Gott	2,925	44	4,835	53
1954	John Rose	5,273	63	4,609	58
1955	Robert Kramer	5,294	55	5,746	63
1956	John Gardner	8,267	51	7,335	49
1957A	Harry Briggs	9,731	73	3,460	57
1957B	Howard Minners	6,312	72	4,185	75
		*16,043	73	7,645	66
1958A	Andrew McGowan	4,700	75	11,795	71
1958B	Paul Rudnick	4,600	69	4,750	58
		9,300	73	16,545	65
1959A	Asa Barnes	5,019	74	5,948	74
1959B	Muriel Wolf	4,750	59	5,296	59
		9,750	67	11,244	67
1960A	Victor Altshul	3,193	51	3,409	62
1960B	Thomas Kugelman	4,908	65	3,780	58
	8	8,101	57	7,189	60
1961A	Robert S. Briggs	5,000	53	3,110	50
1961B	Anoush Miridjanian	3,875	56	3,655	53
	·	8,875	54	6,765	51
1962A	A. R. Pschirrer	6,650	61	2,880	54
1962B	Frederic Cantor	10,170	47	6,998	38
		*16,820	54	9,878	47
1963	Craig Llewellyn	7,577	54	*18,369	46
1964A	William J. Houghton	3,440	56	3,845	50
1964B	William Pratt	7,080	76	7,400	76
		10,520	66	11,245	63
1965	David Hill	13,412	55	6,391	52
1966A	Mary Alice Houghton	3,600	69	5,730	69
1966B	Gary Townsend	2,125	47	2,390	48
	•	5,725	58	8,120	59
1967A	James Dowaliby	9,374	72	2,295	0
1967B	Anthony Lovell	6,270	77	5,210	71
	> ·	*15,644	75	7,505	61
1968A	Frank Lucente	3,376	49	4,802	53
1968B	Donald Lyman	3,928	65	6,104	74
		7,304	57	*10,906	63
1969	Lee Jampol	8,011	60	7,795	58
1970	James Missett	4,104	56	4,256	45
		,			

1971A	Joyn Cieply	3,925	48	4,614	52
1971B	Barbara Kinder	4,570	48	4,845	57
1055		8,495	48	9,459	55
1972	Harry Malech	*11,178	58	9,404	50
1973A	Lee Goldman	820	32	1,190	48
1973B	John McQuade	1,737	44	1,751	48
1973C	Jerrold Rosenbaum	1,490	52		
1975C	Jenoid Rosenbaum			1,510	46
		4,047	42	4,451	48
1974A	Amy Schechter	1,810	48	1,345	45
1974B	Robert Schechter	1,575	28	1,130	31
		3,385	38	2,475	38
1075 4	David David				
1975A	Daniel Passeri	1,080	31	975	19
1975B	Mary Jane Minkin	745	18	1,348	24
		1,825	24	2,323	21
1976A	William Levy	1,915	25	1,755	25
1976B	Robert Taylor	1,170	37		
1970D	Robert Taylor			1,800	40
		3,085	29	3,555	29
1977A	Attilio Granata	1,075	22	1,335	24
1977B	Ronald Vender	1,305	50	1,385	38
		*2,380	35	2,720	30
1978A	Dules Comercia				
	Duke Cameron	1,535	24	2,345	34
1978B	Seth Powsner	155	27	310	33
1978C	Thomas Smith	245	27	865	42
		1,935	25	3,520	35
1979A	Laffray Vaina	561			
	Jeffrey Kaine		30	1,190	34
1979B	Cynthia Sherman	990	36	1,450	31
		1,551	33	2,640	33
1980A	Eduardo Alfonso	770	33	1,215	35
1980B	Cesar Molina	450	20	720	31
1900 D	Cesai Monna				
		1,220	27	1,935	33
1981	Anthony Urbano	965	19	1,325	21
1982A	Muriel Cyrus	205	15	250	10
1982B	Ed Gorlin	175	27	275	28
1982C	S. Wolf—Rosenblum	269	36	270	
1902C	3. Woll—Rosellolulli				32
		* 649	23	795	20
1983A	Michael Tom	290	11	337	12
1983B	David Schwartz	135	21	265	29
		425	14	602	18
10044	IIIII				
1984A	Hingge Hsu	340	27	420	33
1984B	Jay Kostman	280	19	200	11
		620	23	620	23
1985A	Robert Higgins	230	18	125	11
1985B	Fred Santoro	435	43	305	34
1985C	Javier Vizoso	60	19	125	29
		725	26	555	23
1986A	Eric Bernstein	105	14	130	15
1986B	Clinton Lindo	320	18	130	19
			15		
1986C	Eric Suan	330		65	18
		755	15	325	17
1987A	Barry Weinstock		_	1,057	27
1987B	Subba Gollamudi		_	50	11
1987C	Mindy Schuster		_	135	19
		_			
1987D	Mark Widmann	_		70	10
				1,312	17
	*Reunion				
		6571000	40	6470.144	16
Alumni		\$574,069	48	\$478,166	46
Former Hous	se Staff	19,675	22	24,680	23
Parents/Frie	nds	10,396	22	8,216	18
Interest/Misc. Gifts		11,309		11,636	1
TOTAL		\$615,449	41	\$522,698	
1					

Public Health Alumni Fund Class Participation

			86-87	1987	
	AGENT	TOTAL	% PART.	TOTAL	% PART.
1941 and prio		\$10,458	_	\$2,974	_
1942	Eric Mood	425	60	475	80
1943	Eric Mood	395	36	271	27
1944	Eric Mood	250	22	216	29
1945		80	29	85	29
1946	_	100	9	50	14
1947		140	35	60	35
1948	Samuel Herman	750	41	925	50
		595	42	485	
1949	Edgar Geibel				25
1950	Eric Mood	1,150	43	655	38
1951	Robert Johnson		_	420	37
1952	Yolande Lyon	1,075	40	1,000	37
1953	Milton Sisselman	950	38	310	30
1954	Eric Mood	100	21	25	7
1955	Frances Ogasawara	345	44	280	33
1956	David Boyd	373	40	518	33
1957	Edward DeLouise	1,010	35	997	45
1958	Philip Hallen	3,760	36	675	32
		835	46	1,345	36
1959	Dorothy Wilson				
1960	Gyla Brooks	195	22	960	48
1961	Joseph Prekup	580	32	660	33
1962	Thomas Mayhugh	400	50	300	30
1963	David Dolins	1,750	48	1,120	38
1964	Estelle Siker	1,620	52	1,430	41
1965	H. Patterson Harris	2,225	45	1,705	45
1966	Allen Cohen	1,370	37	345	15
1967	James Malloy	2,125	34	1,590	35
1968	Arnold Saslow	1,825	41	2,075	34
1969	Robert Young	1,645	36	1,150	38
	2	5,205	37	3,705	38
1970	Susan Balter				
1971	John Bihldorff	2,855	39	2,170	48
1972	Dorothy Lewis	830	33	685	28
1973	Gary Sax	5,185	34	4,590	30
1974A	Thomas Benoit	765	33	485	30
1974B	Karen Lindfors	425	27	480	35
		1,190	30	965	32
1975	Linda Broker	4,142	32	3,887	34
1976	Elaine Anderson	1,240	27	1,390	33
1977	Dorothy Rice	3,015	30	1,075	24
1978	Ann Freedman	2,988	30	1,090	22
				910	
1979A	Catherine Norton	600	27		31
1979B	Ralph Tartaglione	615	40	1,170	33
		1,215	33	2,080	32
1980	Christina Quinn	1,825	40	1,290	25
1981A	Angelo DeVita	555	25	505	25
1981B	Barbara Gaugler	305	40	155	24
		860	29	660	25
1982A	Constance Jarowey	1,025	27	360	13
1982B	Jean Milton	675	44	730	35
.7021	Jean Wilton	1,700	34	1,090	22
10024	I - CC I I l		39	770	28
1983A	Jeffrey Hughes	1,299			
1983B	Marybeth McNerney	340	19	305	29
		1,639	31	1,075	28
1984A	Anthony Alberg	195	12	183	16
1984B	Leslie Balch	170	13	385	21
		365	12	568	18
1985A	Joan Cleary	215	15	325	10
1985B	Katherine Fitzpatrick	285	24	295	26
		500	19	620	16
1986A	Indu Ahluwalia	255	14	535	17
1986B		465	26	815	32
1 20 UD	Aric Wilt	720	19	1,350	23
10074	W	720	19	460	17
1987A	Hilda Chaski		_		
1987B	Elizabeth Wennar		_	345	14
				805	16
Alumni		72,455	33	52,395	29
Midmin		12,433	33	34,373	29
Interest/Mi	se Cifts	2 685		2,505	

				<i>-</i> 1
TOTAL	\$75,140		\$54,000	
Interest/Misc. Gifts	2,685		2,505	
Alumni	72,455	33	52,395	29

CONTRIBUTORS 1987–1988

MEDICAL SCHOOL **ALUMNI**

Charles R. Mitchell*

Michael A. Parlato*

Walter Clark Tilden*

1913

Ralph E. Taylor*

Ernest Russell*

Willys M. Monroe*

Oscar Brenner*

Maurice Grozin* Chester E. Hurwitz* Helen P. Langner

William Cohen Julius A. Olean* Hyman W. Weinstein*

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Dorence S. Cowles Waldo F. Desmond* William E. Hall Samuel Reback Eli Hyman Rubin* Welles A. Standish Alice A. S. Whittier

Stanton T. Allison* Maxwell Bogin William H. Hahn* Joseph L. Hetzel* Morris Hinenburg

Wallace Robert Bostwick* Henry Irwin Fineberg* John Martin Freiheit* Donald F. Gibson Albert Jablonsky Nathan Levy* William C. Meredith Moses Rothberg Theodore H. Sills M. Dawson Tyson Harry M. Zimmerman

1928

Max Alpert* Sheldon A. Jacobson Edward P J Kearney

Ralph E. Knutti R. Harold Lockhart Edward W. Ludwig* Nathan E. Ross Robert I. Rubinstein John M. Russell* Alvin A. Schaye* Lewis A. Scheuer George C. Wilson

James Rae Arneill, Jr.* John W. Cass, Jr. Frank H. D'Andrea Robert A. Frisch Olive Gates Alexander O. Haff* John A. Hangen Paul F. McAlenney Tony Liebman Rakieten* William F. Roth, Jr.* Russell B. Scobie Robert Tennant Newell Raymond Washburn* Julius G. Weiner* Mahel Wilson Herman Yannet

1930

Samuel Alpert Daniel N. Beers* Frederick Fitzherbert Boyce Charles A. Breck* Lewis Dickar* Vincent A. Doroszka* Knox H. Finley J. Edward Flynn J. Roswell Gallagher Amy H. Hunter-Wilson Edmund L. Kitzmeyer Paul H. Lavietes J. Merriman Lynch* John C. Mendillo Paul Watson⁸ Charles L. Wood

Henry H. Briggs, Jr. Benjamin Castleman* Michael D'Amico Paul A. Harper Harold E. Harrison Morris Heller* Thomas C. Jaleski Rhoda M. Mickey Nelson Newmark Abraham J. Schechter Max Taffel

Louis K. Alpert Reginald V. Berry Henry Brill Frank Carroll Clement C. Clarke Joseph P. Donnelly Lee E. Farr Thomas E. Farthing* Conrad R. Lam Arthur J. Present Elizabeth M. Ramsey Benjamin N. Tager Rudolph E. Vandeveer Myron E. Wegman

Roland T. Wehger*

Myron J. Adams* Fred W. Buse Warren P. Cordes Franklin M. Foote Jack Greenberg Daniel Foster Harvey* George K. Hirst John G. Martin Raymond E. Miller Ashley Pond, Ill* Paul L. Saffo Sidney Stringer* John J. Wolfe Francis M. Woods

Leona Baumgartner Frederick Beck James F. Blades Joseph Budnitz Francis P. Guida* Herbert C. Miller Edward Thomas O'Donnell John B. Ogilvie Lucien M. Pascucci Harry Sherman William R. Willard George Zalkan*

Walter E. Barney George A. Carden, Jr. Sawnie R. Gaston H. Hoffman Groskloss James Quintín Haralambie W. Howard Horner Mildred Hartshorn January Samuel D. Kushlan Donald P. Morris* Norman E. Peatfield Milton Rose* Clark P. Searle Walter A.L. Thompson Samuel Zelman

George Henderson Brown Lester W. Burket Albert W. Diddle Margaret C. L. Gildea George A. Hahn* Louise G. Hutchins Philip M. LeCompte E. James Mulligan Frederick A. Post Margaret Sommers Morris Tager

Edmund R. Blower William G. Cooper, Jr. David A. Dolowitz D. Crosby Greene Wilbur D. Johnston Alfred E. King Dunham Kirkham Julia Mehlman James P. Morrill Charles W. Neuhardt Morgan Sargent Albert D. Spicer John M. Thomas

Jean Wells

1938

Roy N. Barnett Agnes Vernon Bartlett Joseph A. Bliss Henry L. Carideo S. Charles Kasdon Benjamin E. Lvons John J. McGillicuddy Edward Nichols Nelson K. Ordway Charles J. Petrillo Edward W. Pinkham, Jr. James Radcliffe, Jr. George E. Roberge Theodore W. Steege Lester J. Wallman J. Richard Zahn

1939

Harold H. Coppersmith Norman L. Cressy William H. Druckemiller Robert G. Ernst* John P. Ferguson, Jr. Joseph B. Forman S. Jerome Greenfield Arthur E. Laidlaw Margaret A. Lennox Ward J. McFarland James Peter Murphy Russell Nahigian* Douglas S. Riggs Ernest L. Sarason **Bradford Simmons** Rebecca Z. Solomon John D. Tobin Arthur S. Tucker Darrell G. Voorhees Douglass W. Walker John H. Wentworth Malvin F. White

Theodore E. Allen Joseph V. Baldwin Ronald S. Beckett Jack S. Blaisdell Philip S. Brezina Wynant Dean Robert M. Dunlap James F. Ferguson, Jr. Eugene J. Fitzpatrick, Jr. Henry D. Humphrey H. Stuart Irons Donald G. Johnson Ira D. LeFevre, Jr. Paul D. MacLean Edward Martin Maurice Ross Lee S. Sannella W. Norman Sears* Joseph E. Sokal J. Champneys Taylor Patricia E. Wanning Helen H. Woods

1941

Robert H. Alway Robert H. Areson W. Randal Bell William A. Carey Joseph P. Carson, Jr. Charles B. Cheney

Herbert W. Diefendorf Robert F. Dine* Peter A. Duncan Lloyd D. Flint John Franklin Robert L. Gilbert Frederick P. Glike Sidney L. Lasell Biorn Lih F. Eugene Martin Willys M. Monroe Edward B. O'Connell Gioacchino S. Parrella Edwin D. Rogers Leslie Simmonds

1942

William E. Bloomer James M. Bunce Walter J. Burdette Robert E. Carroll Donald S. Childs, Jr. Vincent J. Collins Eugene M. de Hostos David G. Decker Hendrik DeKruif Davitt Felder Elihu Friedmann Allan V.N. Goodyer William Harrison, Jr. Leo Kellerman John R. Lincoln Patrick S. Mullins* Dean Nichols* Michael A. Puzak Samuel Ritvo Charles F. Scholhamer Joseph Seronde, Jr. Richmond W. Smith, Jr. Carter Stilson Edgar B. Taft. Maurice Tulin Francis P. Vose* Irving Norman Wolfson Class of 1942 In Memorial Fund

1943 March

Ralph D. Alley John R. Brobeck Lycurgus M. Davey Donal L. Dunphy R. M. Fasanella Gerard Fountain R. Leonard Kemler Joseph P. Kriss Jonathan T. Lanman* Douglas Lindsey J. Philip Loge Henry E. Markley Walter J.J. Nero Dorothea R. Peck Earl J. Rhoades Henry A. Riedel Bernard R. Rowen Marcus E. Sanford Reginald H. Shephard Edward Hersey Soule Hilliard Spitz Nicholas M. Stahl Robert J. Staub Sophie Trent Stevens Oliver G. Stonington Robert G. Turner Frederick A. Waldron

Medical School Alumni Fund

	1986-87			1987-88				
	NUMBER SOLI- CITED	NUMBER CONTRI- BUTED	PERCENT PARTICI- PATION	TOTAL	NUMBER SOLI- CITED	NUMBER CONTRI- BUTED	PERCENT PARTICI- PATION	TOTAL
Alumni	3,624	1,753	48	\$ 574,069	3,650	1,680	46	\$478,166
Former House Staff	1,002	222	22	19,675	1,002	226	23	24,680
Parents/ Friends	432	93	22	10,396	432	78	18	8,216
Int./Misc.	_	_	_	11,309	_	_	_	_
TOTAL	5,058	2,068	41	\$615,449	5,084	1,984	39	\$522,698

John J. Weber Robert H. Wyatt

1943 December Richard N. Abbott John R. Almklov David G. Borden Robert F. Bradley S. Brownlee Brinkley Henry B. Bruyn, Jr. Thomas L. Bucky Jane B. Cadbury Philip B. Chase Hunter H. Comly Norman I. Condit Ronald W. Cooke Joseph I. Epstein Robert H. Furman Victor C. Hackney Fred M. Haddad Paul W. Hughes Frank R. Hurlbutt, Jr. Henry H. Jones Joseph F. Kell Sawyer E. Medbury Hoyt B. Miles, Jr. Donald W. Seldin Francis A. Spellman* W. Keasley Welch

Carl E. Andrews Edward J. Conway Robert E. Cooke John C. Coolidge Frank W. Countryman Charles H. Crothers Lawrence G. Crowley John H. Doherty Robert W. Frelick Carol Goldenthal Charles A. Hall Howard B. Hamilton Robert I. Hinkley W. Raymond James Ward S. Jenkins Edith M. Jurka John Weaver King Frederick F. Krauskopf Ellen P. MacKenzie Elias J. Marsh Joseph Massaro A. Reese Matteson Paul E. Molumphy Lawrence K. Pickett Haynes W. Sheppard Sarah P. Sherwood Eugene Smith Nicholas P.R. Spinelli Priscilla Dienes Taft Anthony Variabedian Calvin W. Woodruff Reuben Zucker*

1945 George Howard Allison Albert S. Atwood Frederic M. Blodgett Richard W. Breck Louise H. Burr Alice Shepard Cary Jav B. Cohn Thomas P. Cotter Edward M. Daniels Robert S. Easton Alice Dershimer Friedman Raymond A. Gagliardi Philip S. Good Herbert S. Harned, Jr. Paul W. Hoffert O. Roger Hollan Hans R. Huessy Leland W. Jones Raymond E. Lesser Mark McD Lindsey Charles E. McLean

George W. Naumburg, Jr.

Richard M. Peters

Kenneth C. Steele

Charles E. Sherwood

1946

Margaret J. Albrink Joseph A. Arminio William G. Banfield, Jr. Aaron T. Beck Franklin C. Behrle Sanfurd G. Bluestein Linus W. Cave Thomas J. Coleman Fred C. Collier Thomas A. Doe Edward F. Edinger Gregory E. Flynn Martin E. Gordon Charles Sheldon Judd, Jr.* Harold King Benjamin F. Kitchen, Jr. James A. Kleeman Vincent J. Longo Richard H. Mann* Thomas J. Mathieu Hugh J. McLane Joe D. Morris John H. Morton John F. Neville, Jr. Laura W. Neville Vincent Pepe Francis G. Reilly* David H. Riege Julian A. Sachs Richard G. Sisson Robert R. Wagner William P. Walsh William J. Wedemeyer, Jr. Thomas J. Whelan, Jr. Elihu S. Wing, Jr.

1947

George R. Barnes, Jr. Albert W. Bostrom, Jr. John E. Bowers W. Roy Breg, Jr. M. Richard Carlin Charles R. Cavanagh, Jr. Robert A. Chase Amoz I. Chernoff William F. Collins, Jr. Bradford S. Colwell Robert P. Darrow Archie L. Dean, Jr. Jean H. Dougherty Franklin Harold Epstein Richard K. Friedlander Frank H. Horton Robert J. Kerin Don F. Kimmerling Richard P. Levy William K. McClelland Robert F. Newton Myron K. Nobil Lawrence C. Perry Philip H. Philbin Olive E. Pitkin Irving Rudman Alvin Somberg lgor Tamm Patricia B. Tudbury Ellis J. Van Slyck M. Henry Williams, Jr.

1948

Russell J. Barrnett George F. Batten Edith M. Beck Jonathan S. Bishop Allyn G. Bridge Arthur L. Coleman, Jr. Ruth E. Cortell G. Robert Downie Victor A. Drill Elizabeth Fuller Elsner Albert A. Fisk Boy Frame* Emil Frei, III Julian Frieden Allan Green* B. Herold Griffith Sylvia Preston Griffiths Beatrix A. Hamburg Richard M. Hannah Ross R. Harcus W. Rayner Johnson Paul B. Koehler Robert E. Lempke C. Arden Miller John P. Morris John B. Morrison James W. Needham George P. Rostel Benjamin F. Rush, Jr.

Gabriel A. Saviano*

Jerome H. Shapiro Jessie Parkinson Spear Anne G. St. Goar Paul Talalay Wallace W. Turner Paul Woodbury Weld

1949

William G. Anlyan DeWitt C. Baldwin, Jr. William D. Bevis Jonathan S. Bishop Mary Pucci Couchman Phillip G. Couchman N. Joel Ehrenkranz Daniel W. Elliott Gunnar O. Eng Albert A. Fisk Paul S. Goldstein Eleanora C. Gordon Frederic W. Gray Jackson Harris Benjamin A. Johnson Orval I. McKay Timothy F. Nolan, Jr. Richard D. Otis Julian 1. Pichel Edmund L. Piper Charles L. Rennell, Jr. Murray Z. Rosenberg Lawrence E. Shulman R. David Sudarsky Martha Vaughan Vernon T. Watley

1950

Russell N. Anderson Lyal D. Asay Sylvia L. Axelrod John E. Borowy William H. Bucher Alvin Davis Claude W. Delia Kent Ellis Thomas J. Ferraro, Jr. Sidney S. Lee John B. LeRoy Janus C. Lindner Margaret S. Lyman Harold March Harry L. McClelland John H. Meyers Orlando J. Miller Cynia B. Shimm Jane B. Shumway Martin E. Smith* John S. Strauss Robert H. Sturman Myra D. Tyler Class of 1950 In Memorial Fund

Karel Bedrich Absolon

W. Robert Adams Thomas T. Amatruda, Jr. Stanley D. Ardell Eleanor Clay Bigley John J. Egan Sidney S. Furst Joseph M. Garland Lowell I. Goodman Robert N. Hamburger Carrold K. Iverson Jocelyn S. Malkin Francis L. Merritt Paul D. Millikin Walter S. Morgan Albert R. Mowlem Charles A. Nugent, Jr. Gerard B. Odell Alfred Owre, Jr. Arthur A. Pava Maiic S. Potsaid William A. Taylor* Andrew S. Wong

John W. Arnold Frank R. Coughlin, Jr. John P. Filley Robert P. Gerety Thomas S. Kelly N. Karle Mottet Robert G. Petersdorf John Macklin Roberts Leonard Rush Elizabeth M. Rush Mary Wheatland Schley Donald H. Schultz Robert B. Schultz John H. Wagner, Jr. Doris L. Wethers John L. Wolff Harvey L. Young Robert Zeppa

1953

Claude Bloch Harold D. Bornstein, Jr. Remi J. Cadoret William R. Chaffee Allen Chetrick Rex B. Conn James P. Dunn Vincent Lynn Gott Robert Emanuel Hamlisch A. Daniel Hauser George L. Hoffmann David Purdy Holman Peter Biggs Hukill Richard Robert Knowles, III Frederick Martin Lane Hildegard Mueller Leslie Preston Lee Leslie Harvey Martin Peck Warwick Potter, Jr. Paul G. Quie

Jose Ramirez-Rivera Irwin K. Rosenberg Barbara F. Rosenberg Virginia C. Saft Howard Willis Smith Ora K. Smith Lynn Cortland Stoker William Junior Vandervort William August Wilson

1954 Frank P. Berg George W. Bostwick Richard J. Bouchard George N. Bowers, Jr. Ralph K. Campbell Alan H. Covey Arthur C. Crovatto Walter J. Freeman John A. Gariepy Edward J. Gerety Nicholas A. Halasz Robert P. Hatch Walker R. Heap, Jr. Eva H. Henriksen Herbert S. Hurwitz Robert F. Hustead Robert J. T. Joy Richard Lamb Paul N. Neufeld James J. Nora

Lowell E. Olson

William J. Paule

Richard D. Pullen

Jacques M. Quen

John Keith Rose

Robert L. Stein

Elihu M. Schimmel

John W. Vosskuhler

Leonard M. Silverman

Anthony V. Piccirillo

John B. Atwater John C. Bailar, III George E. Becker E, Edward Bittar Douglas G. Boyden Joseph I. Boylan, Jr. Irwin M. Braverman Edward Noel Brennan Padraic Burns Leo R. Cardillo Nicholas A. Coassin Edward D. Coppola* Milton Corn Pasquale James Costa Robert G. Crounse John G. Daley William S. Elliott Leroy Engel F. Robert Fekety, Jr. Edwin G. Fernand Mahlon V.R. Freeman James Conway Garlington Barbara W. Gibson lon Gresser John H. Hodge D. Franklin Johnson, Jr. Harry O. Kendall David R. Kessler Robert A. Kramer Edward A. Krull Roger Lester Alexander Maitland, III Joseph S. McGuire, Jr. Robert C. Nodine James P. Nolan, Jr. Sherwin B. Nuland Gloria C. Onque John C. Pace, Jr. Robert H. Peters, Jr. Gregory Peterson, Jr.

Robert A. Reich F. Brantley Scott, Jr. Clement B. Sledge Phillip W. Smith Alan A. Stone Alexander Zuckerbraun

1956 Alan E. Apfel Levon Z. Boyajian Thomas M. Brown Rosalie A. Burns Joseph C. Cerny Edwin L. Child Chandler Dawson S. Evans Downing Gilbert M. Eisner Thomas F. Ferris John H. Gardner, 111 Sumner Gochberg George E. Green Val Shea Greenfield Robert H. Groves Arne G. Haavik Armen Charles Haig John Herd Hart William H. Hindle George T. Kammerer William V. Lewit Leo Lutwak Preston C. Manning Dwight F. Miller Norman E. Moon Donald J. Nalebuff William M. Narva David A. Page George W. Paulson Stewart E. Pursel Edward C. Senay Benjamin A. Shaver, Jr. Daniel R. Silbert

Joseph S. Amenta Frederick C. Battaglia Jane Barbara Battaglia F. Calvin Bigler Jack Norman Blechner Richard I. Breuer Harry C. Briggs John P. Carey Albert K. Chun-Hoon Thomas H. Danaher D. Joseph Demis Harold J. Fallon, Jr. Robert E. Fishbein James R. Fitzgerald Anthony L. Fons, III Elizabeth H. Forsyth Gary A. Fry Robert H. Glass Anne H. Good Jack Peter Green Malcolm Hill Warren R. Johnson Richard Lee Kahler Stanley E. Kilty William L. Kissick Willard A. Krehl Edgar H. Levin Jack Levin Mark D. Marshall Howard A. Minners Robert K. Modlin Hugh Lamson Moffet George Albert Nelson, Jr. Herbert A. Newman Thomas Francis O'Brien, Jr. Joseph S. Pagano Raymond E. Phillips Clifford B. Reifler Arnold Schoolman Stanley Simbonis

Kenneth A. Simon Gilbert B. Solitare Robert W. Southworth Donald C. Stahl Arthur Taub William J. Waskowitz Herbert Winston James G. Zimmer

1958 George K. Aghajanian

Don P. Amren

Joseph E. Angelo

John P. Arnot William C. Branscome Gerard N. Burrow Benjamin Bursten David A. Carlson John A. Carlston Robert V. Diserens Robert J. Donohue, Jr. Lawrence Dubin Donald A. Duncan Joel C. Eberlin Philip R. Fazzone Michael E. Fishman Raymond A. Gaito John C. Gallagher Marcia Kraft Goin William M. Gould James Greenwald Stanley Harris Michael Kashgarian Haskins K. Kashima Jay Ward Kislak Theodore W. Lieberman Michael J. McCabe Andrew Joseph McGowan, Jr. John A. Merritt, Jr. Richard Charles Miller Albert Muggia Robert S. Neuwirth David W. O'Keeffe Carol F. Phillips David M. Pugh William B. Radcliffe Paul A. Rudnick Bruce H. Sklarew Edward Lloyd Socolow Raymond W. Turner Margaret Smith Wenzel

1959

Scott Ingram Allen Carol J. Amick Robert M. Amick Asa Barnes, Jr. Francis A. Beer Jack F. Bowers Edwin M. Clayton Sidney M. Cohen Martin Colodzin Ronald C. De Conti William L. Donegan Gerald Fenichel Robert L. Fisher Paul Jay Friedman Eric Gillett Robert J. Gonvea Gerald B. Gordon W. Keith Hadley James H. Halsey, Jr. H. Rodney Hartmann William H. Heydorn C. Richard Hinckley Leonard Inker John J. Jasaitis Edvardas Kaminskas David W. Kingsbury

Joseph P. Wierzbinski, III

John Patrick Wood

Pauline B. Wood

Myron S.S. Lee Kathryn Huxtable Lewis John Č. Marsh D. Kent Morest James A. O'Neill Robert H. Ostberg Nicholas M. Passarelli Lincoln T. Potter James D. Prokop James R. Ralph David Pardee Reed Joseph D. Saccio Constantine J. Sakles Marc D. Schwartz Owen A. Shteir Sanford P. Solomon Gene W. Spector James J. Stagnone Lisa A. Steiner John S. Strauss Lois W. Tice* Leo H. Von Euler Muriel D. Wolf Class Of 1959

1960

Victor Altshul Jack D. Barchas Stuart P. Bowne Ormond V. Brody Donald P. Buebendorf Thomas E. Carson Stanley M. K. Chung Gerald N. Cimmino Neil R. Cooper John M. Davis David Paul Dunn* March Enders Caldwell B. Esselstyn, Jr. Warren H. Fisher Alvin E. Friedman-Kien Eugene C. Gaenslen, Jr. James I. Gilman Maxwell E. Gottesman Roland H. Ingram, Jr. Daniel M. Jones William S. Kaden Eric P. Kindwall Frank J. Kleeman Susan T. Kleeman Thomas P. Kugelman Edward R. Lang Thomas Lau Thomas L. Lincoln Robert Marcus Eugene G. McCarthy, Jr. Donald L. Miller Richard G. Morrill Allan W. Newcomb Buford L. Nichols, Jr. Fred Palace Jerrold M. Post Albert Matthew Ross Daniel J. Rubin John J. Schrogie Fred Stargardter

1961 Kenneth A. Arndt Earl L. Baker Frank H. Baker Albert A. Bechtoldt, Jr. Robert S. Briggs David William Brook Paul David Deiter Ronald A. Dierwechter Jon Dudley Dorman T. Wayne Downey John E. Fenn Norbert Fleisig Edward C. Gilbert

Robert C. Wallach

Ronald A. Yankee

David D. Griffith Louis D. Hunt Richard L. Keefe Robert Michael Livingston George M. Lordi Hugh James Lurie Joseph Richard Lusby Sally Lockwood Marchesi Vincent T. Marchesi David B. Matloff Anoush Miridjanian Richard Allen Moore John Curtis Parker Elaine Pitt William M. Rogoway Roy E. Ronke, Jr. Stanley G. Schade Robert N. Taub Hugh C. Thompson, Ill Franklin H. Top, Jr. David E. Weaver Warren D. Widmann John R. Woodward

1962

Michael H. Alderman Charles B. Anderson Fredric K. Cantor Thomas Newell Chase Richard N. Collins Oliver Townsend Dann I. Bruce Elfenbein Joseph D. Ferrone, Jr. John W. Foreman Leroy A. Forstrom Stephen John Fricker Roger P. Friedenthal Anthony V. Furano John N. German David H. Groth John H. Hageman John T. Harrington Patricia C. Hassakis Gary Jacobson Glenn L. Kelly Manuel J. Lipson John P. Lynch Stanley E. Matyszewski David J. McConnell William A. Miller Malcolm S. Mitchell David D. Nicholas A. Richard Pschirrer Joseph Ross James A. E. Spencer Larry Lee Stewart Seth Thaler Stewart R. Wright

Arthur Howard Ackerman Miguel R. Alonso V. Richard Back Gordon S. Cohen James S. Dalsimer Andrew Edin B. Allen Flaxman David H. Fram William T. Friedewald David H. Fulmer Alexander R. Gaudio Vincent F. Geremia, Jr. Lee D. Goldberg Peter B. Gregory Constantine D. Kyropoulos William B. Lehmann Peter B. Livingston* Craig H. Llewellyn Edward G. Lund, Jr. Robert H. Margulis Herbert Meltzer Robert E. Mueller Sheldon R. Pinnell

Jay M. Pomerantz Gene R. Profant Alan E. Shapiro Lee Bland Talner Thomas W. Tillack Peter V. Tishler Lawrence Tremonti Peter G. Weiner Jerome Allen Winer Alfred J. Wise

1964

Berton W. Ashman Leland S. Berger Philip Blume Robert M. Briggs Thomas A. Cardella Joseph F J Curi Beverly Ann Dudek Alfonso Esguerra Anthony Ferrante Norman C. Fost Peter A. Gross John F.B. Hanev Gene 1. Higashi Richard Hockman Lawrence Horwitz William J. Houghton William E. Knight Lewis Landsberg Richard V. Lee Thomas L. Lentz James S. Levine Paul R. Lightfoot, Jr. Richard Murray Linburg Robert W. Lyons William F. Matchett Robert L. Mitchell Alan H. Morris James J. Murphy Donald A. O'Kieffe William B. Pratt Jack S. Rice, Jr. Stanley J. Rosenberg Saul M. Schanberg Norman Scher Robert L. Shelton Diane Shrier Donald G. Skinner A. Thomas Snoke Sigrid L. Tishler Lee Van Lenten Charles Vogel Stephen Waltman Oscar Wand

1965

Susan A. Aoki Thomas T. Aoki Philip W. Askenase John H.M. Austin Paul Balter Thomas B. Caldwell, III Robert M. Cohn Michael J. Cummings David S. Fedson Robert I. Finkel Frank J. Grady Robert Andre Gryboski James K. Gude Reid R. Heffner, Jr. David A. Hill Carl E. Hunt Virginia Burnham Johnson Ronald J. Karpick Mohandas M. Kini Richard J. Kozera Sandra Chook Levine Mark W. Lischner Walter W. Noll A. Lawrence Ossias John A. Parrish Robert L. Pickens

Alan N. Rachleff Gene A. Robinson George B. Rowland John F. Schilke John H. Seashore Margretta Ann Reed Seashore David M. Shames David P. Simmons Harlan Spitz Alan William Stone Robert G. Weiner Bert Yuan-Shu Wong

1966 Benjamin F. Balme John D. Baxter Patricia Bazemore Robert P. Bazemore Frank C. Bell Philip Bernstein James Edward Brown Eugene Patrick Cassidy Donald J. Cohen Joseph A. Donadio Robert E. Dragon Marvin A. Eisengart Jared M. Emery Robert N. Frank Robert C. George Peter D. Gibbons Stanley I. Greenspan J. McLeod Griffiss Robert A. Gunn Jay G. Hayden Mary Alice Houghton Richard J. Howard Bruce W. Jackson Gordon R. Kelly Stuart M. Kotler Wilbur L. Kukes David C. Law Lynne L. Levitsky John Stephens Melish Marian Matheke Melish Harold Mellin Eli H. Newberger William D. Peterson Joel Singer James D. Slavin, Jr. Parker J. Staples Gary L. Townsend Jon S. Wayland

1967

Joan T. Wayland

Arne S. Youngberg

Daniel L. Arons Richard S. Bockman Daniel J. Booser Gary C. Burget William T. Cave, Jr. Cynthia Rapp Curry Marian C. Davidson Timothy J. Dondero, Jr. James M. Dowaliby, II John A. Drews Peter R. Egbert Herbert W. Felsenfeld Melvin Victor Goldblat Richard J. Hart, Jr. Richard L. Heppner Peter N. Herbert George P. Herr David L. Ingram Melvyn Korobkin Anthony P. Lovell Stephen W. Miller William J. Mitchell Joseph L. Morris Jennifer Robinson Niebyl John O. Pastore William E. Perkins

Brian F. Rigney Robert I, Roy Jonathan L. Savell Alfred Q. Scheuer Stephen C. Schimpff Sidney C. Smith, Jr. Lewis S. Solomon Robert S. Steinberg Richard B. Swett M. David Tilson, Ill Karen H. Toker Robert A. Vogel Robert A. Vollero Joseph F. Walter Martin Wand Robert J. Winer Robert S. K. Young Peter M. Zeman

William Catalona

Edward M. Druy

Donald R. Coustan

Barbara Mayer Egbert

Alan G. Finesilver William F. Flynn Richard A. Getnick Mark Gilbert Grand Leonard Grauer Ralph S. Greco Kevin N. Hennessev John R. Hill, 11 Harry S. Holcomb, III Thomas R. Johnson William F. Keane Daniel E. Keim Jeffrey S. Lee Ellen Marks Lippman Marc E. Lippman Peter A. Livingston Frank E. Lucente Donald O. Lyman Stephen I. Marglin Rodrigo Martinez Harmon Michelson Richard P. Mills Richard M. Morehead, Jr. John A. Ogden James W. Ogilvie Margot Onek Francis F. Paul Jackson B.E. Pickett, III Charles T. Post, Jr. Ralph Jerome Rauch Joseph L. Renda Gordon H. Sasaki Jacob J. Schlesinger Bruce Stuart Schoenberg* George F. Sheckleton, Jr. Frederick C. Sherman Howard W. Siegel David A. Soskis Gerald L. Springer Lee H. Strohl James L. Weiss H. Terry Wepsic Per Henrik Wickstrom Creed W. Wood

1969

Charles S. Angell David G. Ansel David W. Barry Robert E. Belliveau David A. Berkowitz William F. Bynum N. Roger Cooke Leo M. Cooney, Jr. Richard J. Daly Charles A. Dinarello Ralph J. Falkenstein Gary S. Farnham Lesley Forman Fishelman

Steven A. Frankel William H. Frazier Anna S. Gail Royal J. Gay Sander G. Genser Robert O. Gordon Thomas C. Howard Lee M. Jampol Joel Mark Kaufman Paul H. Kelker John J. Kelly, Jr. Lvnn G. Lagerquist, Jr. Michael R. Liebowitz Elliot M. Livstone Robert L. Marier Arnold F. Mazur Ellen B. Milstone Thomas F. Minehan Bruce K. Nagle Lionel M. Nelson Nancy Olmsted Timothy A. Pedley Deborah A. Putnam N. Burgess Record, Jr. Joseph D. Robinson Joseph M. Rochford Dennis J. Rudzinski David J. Sahn Adrian M. Schnall David J. Schulak Gerald J. Smallberg Robert J. Walat Stephen R. Webb

1970 Elissa B. Arons Henry Chessin Michael J. Chusid C. Norman Coleman James E. De Lano, Jr. Daniel Frizell Dedrick Jonathan Ecker Richard L. Edelson Robert Alan Epstein Bruce A. Fabric Thomas H. Gouge Paul C. Hessler Jav H. Hoofnagle Jonathan D. Katz Mark A. Korsten Thomas L. Lewis Robert B. Litman Anne W. Lucky Roger A. Mason James R. Missett William K. Mueller James E. O'Brasky Bruce A. Reitz Robert M. Rosa Joel F. Rubinstein Ronald M. Sato Dennis E. Shield Stuart S. Shorr Richard A. St. Onge Daniel A. Symonds **Brian Weiss** C. Bruce Wenger Daniel Wuensch Karl O. Wustrack

Judith L. Bader Gregory W. Bartha Laurie J. Bleicher Bruce Block Marian H. Block Willard Cates, Jr. John L. Cieply Frederick L. Cohn Andrew D, Cook David Cossman Edward C. Cottle Michael Cynamon

John S. Ebersole Leonard I. Eisenfeld Harvey Fernbach John W. Foster, Jr. Richard Gloor Jerold Alan Haber William W. Hay, Jr. Richard Katzman Robert M. Kessler Barbara K. Kinder Ralph J. Kirmser William L. Krinsky David H. Lippman Sten B. Lofgren Sherry W H Loo Wallace J. Matthews, Jr. Patrick T. Minihan Steven H. Moffic Richard Albert Moggio Martin Paris John A. Patti Barry Bruce Perlman Michael C. Piercey Anthony V. Proto Barry S. Rand Irving G. Raphael David M. Rinzler James P. Southwick Jonathan W. Stewart Daniel R. Synkowski Richard D. Travers Yvonne E. Vaucher Paul A. Vignola Jerold C. Woodhead Burns Woodward Daniel G. Wright

1972 Robert D. Arbeit R. Michael Buckley, Jr. Michael A. Catalano Philip L. Cohen Gloria Cummings* Robert F. DeBlasi Norman M. Dinerman William H. Druckemiller, Jr. William F. Duke M. Felix Freshwater John P. Fulkerson Robert B. Geehr Dorothy M. Gohdes Andrew E. Hoover Thomas L. Horn Vernon H. Humbert, Jr. Fred Hyde Anthony H. Jackson Jesse B. Jupiter Frank M. Kahr Donald L. Kent David L. Kneapler Philip W. Lebowitz Theodore M. Levin Paul A. Lucky Harry L. Malech Jeffrey S. Menkes Jorge A. Motta Thomas H. Ogden Louis Reik, Jr. William L. Risser Richard S. Robbins David H. Romond Philip M. Rothfeld John S. Smolowe Frederick D. Stockwell Gary M. Strauss Lawrence P. Temkin Philip J. Weyman John D. Wright, Jr. Michael W. Yogman Steven M. Zeldis

1973 David Nelson Bailey

Michael L. Bramley Mary Ann Brunstetter-Shafer Marvin M. Chassin Joseph M. Connors David L. Coulter Carolyn G. Dedrick Christopher M. Doran Joseph W. Eichenbaum Jane H. Ferguson Richard J. Fingeroth Robert A. Florin George I. Frank Lee Goldman Gary V. Gordon Neal Handel David C. Johnson Andrew G. Kadar Michael S. Kramer Lynne M. Liptay George Lister, Jr. Harold R. Mancusi-Ungaro, Jr. John F. McQuade, III Jerry Nagler John Neil* Victor L. Pappoe David E. Peach David Pickar Charles F. Reynolds, III James S. Robertson Thomas J. Romano Jerrold F. Rosenbaum Robert A. Sirota John R. Stratton James F. Sullivan Thomas F. Sweeney Robert J. Ursano Christine A. Walsh Richard S.K. Young

Randall M. Zusman

Stephen B. Arnold Irving M. Asher Leonard I. Banco Douglas A. Berv Bruce David Blumberg Peter J. Buchin Bert D. Collier, Jr. Paul David Roger H. Emerson, Jr. lrl L. Extein Allan B. Friedland Michael A. Gerber Ary Louis Goldberger Robert F. Hempton Robert M. Jarrett Robert C. Jimerson Robert M. Kolodner Saul Lande Olusegun O. Lawovin James R. McMonagle Richard C. Pasternak Andrew L. Ries David Z. Ritvo Daniel I. Rosenthal Amy S. Schechter Robert J. Schechter James A. Strom George H. Talbot Carol C. Teitz John Jones Thompson

J. Edwin Atwood Ralph E. Binder Neil Blumberg William S. Bush Chau V. Dang Stanley W. Gale Elizabeth R. Gawron Nancy C. Greep Carol L. Kandall Kevin Kane

Bernhard H. Lisker* Robert F. Malacoff Mary Jane Minkin Robert G. Nankin Andrew B. Newman Edwin G. Olson Vivian Reznik Salvatore V. Romano, Jr. Robert S. Sandler Steven A. Schwartz Barbara J. Stoll Douglas R. Zusman

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EPH Messages:

Jan A.J. Stolwijk, Ph.D.

In the second year of the campaign to establish three John D. Thompson Scholarships, the drive in 1987-88 did not quite reach its \$75,000 goal; however, the difference will be made up next year and three John D. Thompson endowed scholarships will be in place.

These funds are a tribute to John Thompson, who personally influenced many hundreds of our students—the degree of the overall success of this drive gives further evidence of the depth of the gratitude our alumni feel for his enormous contributions. We are fortunate that, although officially retired, he will continue to be present at EPH. His presence will translate into continuing contributions.

The faculty of the department is engaged in a comprehensive internal review of the academic and organizational aspects of its activities. This review is designed to arrive at a five-year plan for the department. It has been a very productive effort. *Jan A.J. Stolwijk*, *Ph.D*

Chairman and
Susan Dwight Bliss Professor
Epidemiology and Public Health

Kay Howe, M.P.H.

Although the Public Health Alumni Fund did not reach its 1987-88 goal of \$75,000, the spirit of optimism prevails and three John D.

Thompson Scholarships will be endowed—it will just take a little longer than planned. This year's deficit will be made up in 1988-89 and henceforth all funds, in increments of \$50,000, will be used to endow departmental scholarships.

In my final report as chairperson of the Public Health Alumni Fund, I want to pay tribute to everyone who has contributed over the years to the steady growth of the fund. The personal touch provided by the class agents, past and present, has had a noticeable beneficial effect on this growth. To them all my heartfelt thanks. Also my gratitude goes to all those who have participated in successful phonathons every year. And again my thanks to all the graduates and friends of the department for their generous contributions on behalf of student support.

And then there's Stephen Skorcz, immediate past president of the Association of Yale Hospital Administration Alumni, who has devoted untold hours to the John D. Thompson Scholarship endeavor. Not only has Steve worked tirelessly for the past two years on that drive, but he has consented to assume the chairmanship of agents for the Public Health Alumni Fund. I cannot thank him enough for his commitment to the students who come to the department for their graduate education. It is a joy to turn over the reins to him and to wish him well.

Kathleen H. Howe, M.P.H. '56 Chairman Public Health Alumni Fund

Public Health Alumni Fund

1986-87				1987-88				
NUMBER SOLI- CITED	NUMBER CONTRI- BUTORS	PERCENT PARTICI- PATION	TOTAL	NUMBER SOLI- CITED	NUMBER CONTRI- BUTORS	PERCENT PARTICI- PATION	TOTAL	
2,044	669	33	\$72,455	2,138	619	29	\$52,395	
		_	2,685	_		_	2,505	
2,044	669	33	\$75,140	2,138	619	29	\$54,900	
	SOLI- CITED 2,044	NUMBER SOLI-CITED CONTRIBUTORS 2,044 669	NUMBER SOLI-CITED CONTRIBUTORS PATION 2,044 669 33 — — — —	NUMBER SOLI- CITED NUMBER CONTRI- BUTORS PERCENT PARTICI- PATION TOTAL 2,044 669 33 \$72,455 — — 2,685	NUMBER SOLI- CITED NUMBER CONTRI- BUTORS PERCENT PARTICI- PATION NUMBER SOLI- CITED 2,044 669 33 \$72,455 2,138 — — — 2,685 —	NUMBER SOLI- CITED NUMBER CONTRI- PARTICI- PATION PERCENT FOR TOTAL NUMBER SOLI- SOLI- CITED NUMBER CONTRI- BUTORS 2,044 669 33 \$72,455 2,138 619 — — — 2,685 — —	NUMBER SOLI- CITED NUMBER CONTRI- BUTORS PERCENT PARTICI- PATION NUMBER SOLI- CITED NUMBER CONTRI- BUTORS PERCENT PARTICI- PATION 2,044 669 33 \$72,455 2,138 619 29 — — — — — —	

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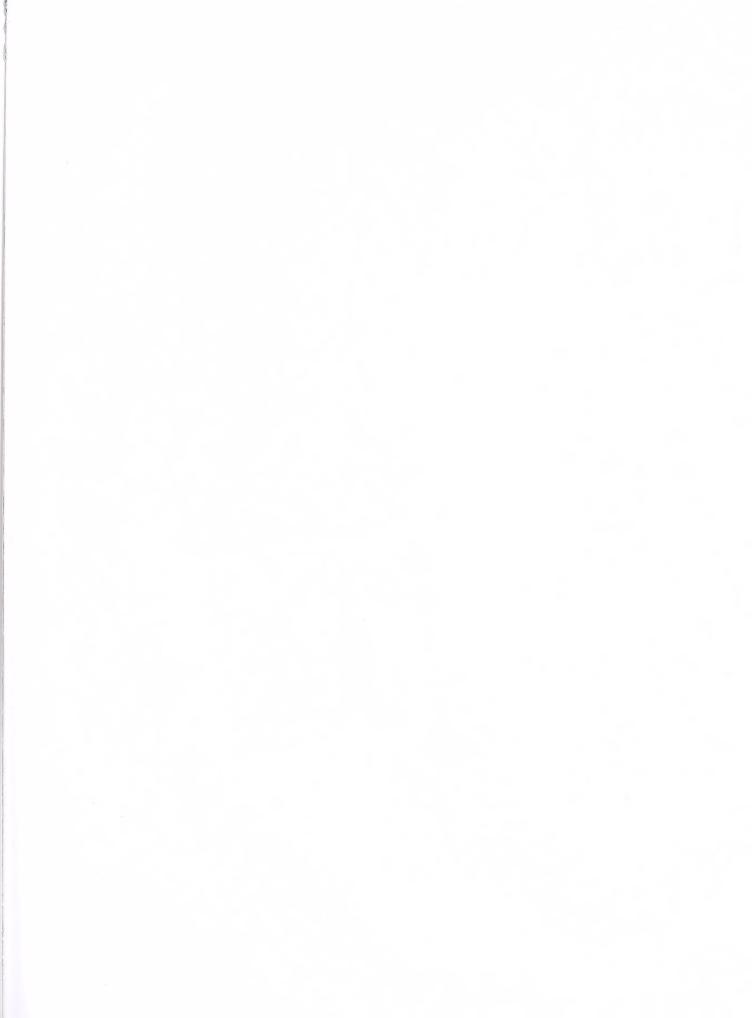
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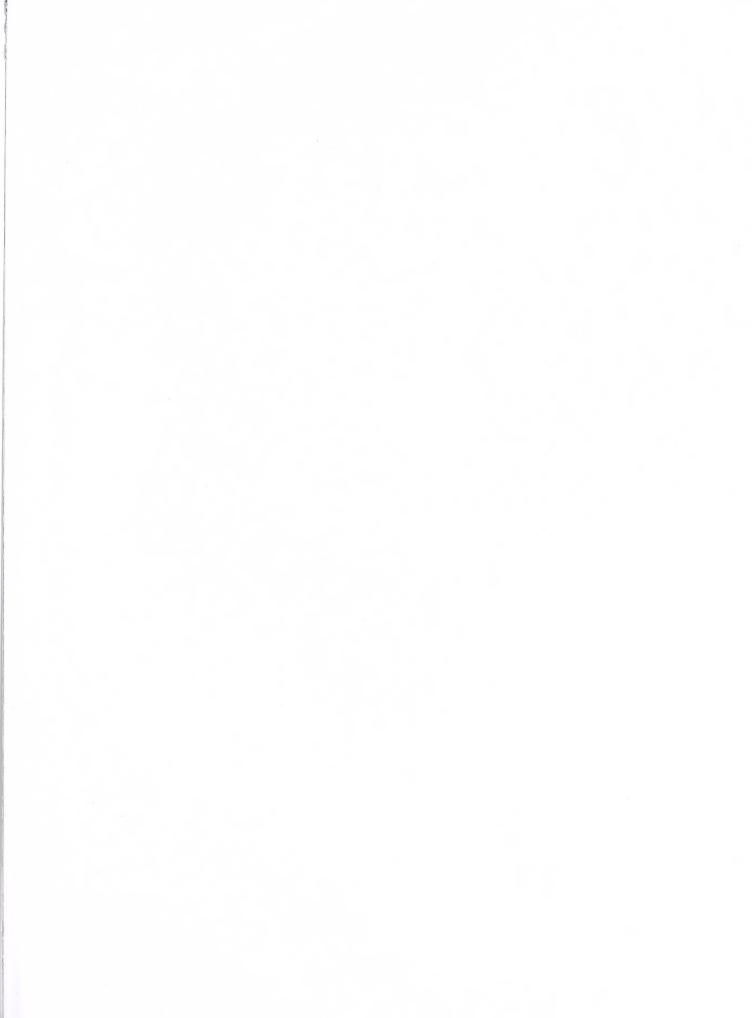
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YALE MEDICINE

Alumni Bulletin of the School of Medicine

Spring 1989

Clinical Genetics at Yale: The Future Is Now

YALE MEDICINE

Alumni Bulletin of the School of Medicine

Spring 1989; Volume 23, Number 2

2



The Harvest We Shall Bear

Joseph A. Califano Jr. warns how today's demographic trends—older Americans retiring earlier and living longer; younger Americans having fewer children—will overwhelm tomorrow's health care system unless we act now.

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Clinical Genetics at Yale: The Future Is Now

Gene therapy, advances in prenatal screening, new diagnostic techniques that use flourescent dyes: The department of human genetics is putting tomorrow's medicine to work today. YALE MEDICINE talks with leading clinicians and researchers.

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I Have Done That, Mrs. Roosevelt

Dr. Fred Collier '46 shows that financing a medical education is a struggle that the current generation of students cannot claim for its own. When the Army's support for his studies ended after V-E Day during World War II, Dr. Collier took a bold step—he wrote Eleanor Roosevelt.

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A New Commitment to Medical School Women

A School of Medicine task force on the status of women faculty has made 13 recommendations which have been endorsed by the dean and the Board of Permanent Officers. In keeping with the spirit of the report, YALE MEDICINE profiles five faculty women



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Dr. Langner Lives History

An interview with Dr. Helen P. Langner '22 reveals a career that traces nearly 70 years of women physicians' struggle to break into a medical establishment long dominated by men. Meet this remarkable, affable psychiatrist, who remains in part-time practice at age 96.

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The cover features CISS, a diagnostic technique developed at Yale that labels target genes or chromosomes with fluorescent dyes. A normal cell nucleus displays two points of light; these nuclei, showing three points, signify Down syndrome.

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The magazine is produced by the Office of Public Information: Helaine Patterson, director; Gregory R. Huth, publications editor; Leah D'Eugenio, staff assistant; and Claire Bessinger, senior administrative assistant. The triannual magazine is prepared in cooperation with the Alumni and Development offices at the School of Medicine. Layout and production: Chave Design.

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LETTERS TO THE EDITOR

Art History

To the editor:

After reading the article by Janice Braun in the fall/winter issue describing illustrations by the artist Boris Artzybasheff, I thought that your readers would be interested to know that a portrait of Harold Saxton Burr (1889-1973) done by Artzybasheff in 1957 hangs in the I-wing on the second floor of the Sterling Hall of Medicine. This tempera painting has a photographic quality and is an excellent likeness of Professor Burr, who was a member of the Yale faculty from 1914 to 1958 and was appointed the Ebenezer K. Hunt Professor of Anatomy in 1933. It was a gift of former students, alumni and colleagues of the renowned

neuroanatomist. Professor Burr, who was also a talented painter, resided in Old Lyme, Conn., and Artzybasheff was a neighbor and close friend.

Arthur Ebbert Jr., M..D. Professor Emeritus of Medicine New Haven, Conn.

Editor's note: *Dr. Ebbert is the former deputy dean of the medical school and the former editor of YALE MEDICINE.*

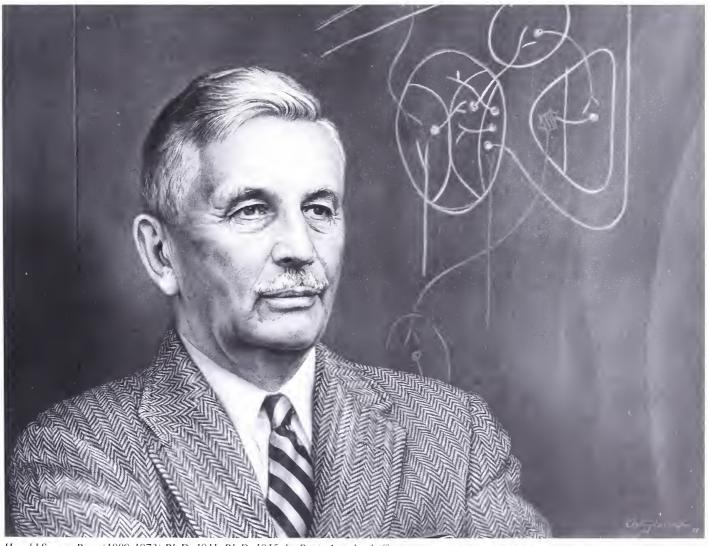
Minor Fallout

To the editor:

Referring to the article in YALE MEDICINE, Volume 22, Number 3 on "Confronting Armageddon," 1 first

want to say that it was very good and quite illuminating. But I want to get the record straight on one item. Under the paragraph labelled "Turning Point", the Three Mile Island incident occurred on March 29, 1979, not in 1978. My son Robert (B.S. '61) was newly appointed at that time in charge of research for the Nuclear Regulatory Commission, and he was very much involved in the scientific investigation of the incident. He remained with the NRC for only two years and went back to the University of California at the Lawrence Berkeley Laboratory.

Joseph Budnitz B.S. '31, M.D. '34 Pittsfield, Mass.



Harold Saxton Burr (1889-1973) Ph.D. 1911, Ph.D. 1915, by Boris Artzybasheff

THE HARVEST WE SHALL BEAR

by Joseph A. Califano Jr.

The aging of America in the post-industrial period is fundamentally reshaping the landscape of American life.

As the 20th century makes way for the 21st, America stands at the dawn of the first four-generation society in recorded history. We will soon be a nation in which it will be common to have two generations of the same family in retirement, on Social Security, on Medicare, receiving nursing care, even in the hospital.

That dawn can be the start of a harvest of plenty, a golden era in which great-grandparents pass on a rich, living inheritance of love and wisdom to their great-grandchildren and future generations, or it can be a harvest of shame, a frightening era marked by dependence, poverty, disease and death control. Which era dawns will depend on our moral values and compassion, and in large measure on our ability to direct our money, brains and energy to the problems and opportunities of the four-generation society.

The aging of America will require us to tax our imaginations as well as our pocketbooks. It will strain our political, retirement and social service systems. It will affect transportation, entertainment, housing, religion, politics and family life. As never before, it will test our commitment to decent human values.

Nowhere is the aging of America more freighted with danger and opportunity than in the area of health care. The questions we face—who lives and how, who dies and how, and at what cost—are complex and confounding. We must think with a long view if we are to comprehend such questions and deal with them wisely. The relentless ticking of the clock and the omnivorous appetite of health care for our financial resources add an urgency that demands action.

Trends and Tribulations

Three dramatic and inexorable trends etch the aging of America. First, life expectancy has increased by nearly 12 years since 1940. In that year, the average life expectancy at birth was just over 63 years, lower than Social Security's retirement age of 65. Today almost three-fourths of our population reaches age 65, and, once there, they will live on average for another 17 years.

By the year 2050, we are told, life expectancy will increase only another four years for men and five for women. But healthier habits, better public health, biomedical advances, and increased access to health care have consistently rendered projections of life expectancy decidedly conservative.

Second, early in the 21st century, the postwar baby boom will result in a senior boom. In 1940, roughly 7 percent of our people were 65 or over; today, the proportion is about 12 percent, some 28 million. By the year 2030, at least 20 percent—66 million citizens—will be 65 or older.

Third, America's older population is itself aging. In 1940, less than 30 percent of the people over 65 were over 75; by the year 2000, this population will rise to 50 percent—that's enough people to fill more than two cities the size of New York. And more than one million Americans will be over 90,



Joseph A. Califano Jr.: "We've got to market health promotion to the elderly with the same expertise that Chrysler sells its cars and McDonald's its hamburgers."

enough to populate Detroit. Even now, almost 12 million people, some 40 percent of Americans over 65, are over 75.

The impact of this historically unprecedented aging of a nation acquires magnum force as a result of simultaneous trends in our society:

- Though people are living longer, they are retiring earlier.
- The birth rate is stabilizing at a lower level.
- Americans are waiting till an older age to have babies.

The resulting erosion of the support base is ominous. As baby-boomers swell the ranks of the elderly, the ratio of active workers to retired citizens will slip from about six-to-one in 1985 to about three-to-one in 2030.

The shift in population distribution—especially the increase of non-working groups under 18 and over 64—signals danger ahead. For the health care system, it means fewer of the lowest-cost, lowest-intensity users of medical services, and lots more high-cost, high-intensity consumers—against the background of a shrinking proportion of workers to pay the bills.

Joseph A. Califano Jr. is a senior partner in the law firm of Dewey, Ballantine, Bushby, Palmer & Wood. He was secretary of health, education and welfare from 1977 to 1979 and President Lyndon Johnson's assistant for domestic affairs from 1965 to 1969. This article was excerpted from his keynote address at the dedication of the Dorothy Adler Geriatric Assessment Center, Nov. 9, 1988, at the Sterling Hall of Medicine.

And the health care bills will be big: by the year 2000, \$1.5 trillion, 15 percent of the gross national product. Shortly after that, we'll be spending more on Medicare than on Social Security, some \$600 billion, as compared to \$595 billion. By contrast, this year Medicare will cost \$80 billion; Social Security \$230 billion. By the year 2000, these twin pillars of social insurance will cost a total of \$1 trillion.

Moreover, the unfunded health care liabilities of our nation are so great that their potential exposure terrorizes the balance sheets of the Fortune 500. The Financial Accounting Standards Board is planning to require corporations to show retiree health liabilities on their balance sheets. For some companies, these liabilities can equal or exceed their net worth.

Such monumental liabilities—coupled with the health care needs of a burgeoning elderly population and the shrinking proportion of workers—make imperative a re-examination of our assumptions about old age and retirement and how our social systems respond to old age.

A New Focus

A major issue—one at the core of the work of Yale's Dorothy Adler Geriatric Assessment Center—is how to deliver services older people need more compassionately and efficiently.

We need a social and cultural revolution in the way we look at the elderly and how we respond to their needs. Presently, we devote almost a third of Medicare spending, about \$25 billion a year, to provide care—often high-tech, heroic procedures—for those with less than a year to live.

But as a nation, comparatively speaking, we spend almost nothing on efforts to reduce dependency among the elderly. Isn't it time to reconsider our priorities, to devote more resources to keeping people active and productive—or at least at home?

If a fundamental objective of public and private health is to keep people active, then we must mount what I call Project Independence for Older Americans:

- an aggressive national program of health promotion and disease prevention;
- a major research effort aimed at reducing the ailments that make so many elderly people dependent; and
- a host of innovative delivery programs like those at the Adler Center.

In 1988, health promotion and disease prevention accounted for less than 1 percent of the federal government's \$125 billion health care bill. They accounted for less than three-tenths of 1 percent of the nation's \$550 billion in health-care spending. The proportion of prevention spending targeted on those over 65 was a dismal fraction of this.

Many people and much health promotion advertising implicitly equate health with youth. The truth is that people can be healthy at any age. Many older people believe that there is no need for them to exercise; some even think that exercise can be harmful. In fact, they can gain cardiovascular, muscular and other benefits similar to younger age groups.

We've got to get the word out to market health promotion to the elderly with the same expertise that Chrysler sells its cars and McDonald's its hamburgers. The priorities are



Social worker Nanne Scholhamer, M.S., interviews an Adler Center patient. As one of the two volunteers who began the geriatric assessment program out of the Primary Care Center in 1981, Ms. Scholhamer points out that today the Adler Center also offers the services of physicians, nurses and a psychiatrist. (Photographs courtesy of Yale-New Haven Hospital.)

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quitting smoking, proper diet, exercise, preventive checkups, and moderation in use of alcohol. In addition, the elderly need special focus on three other areas—identifying and treating chronic conditions early, recovering from injuries, and using medicines safely.

As people live longer, the time during which they are potentially dependent on help in daily living increases. I envision the research arm of Project Independence as an effort on the scale of the Manhattan Project to reduce the chief threats to the independence of older Americans.

The Project Independence Research Agenda

America's 1.5 million nursing home residents are a catalogue of the elderly's dependencies:

- 85 percent need help in bathing, 70 percent in dressing,
 50 percent in using the toilet, more than 30 percent require help eating;
- 32 percent suffer from mental disorientation, 25 percent are affected by chronic brain syndrome;
- 25 percent have arthritis or rheumatism.

The extent of dependency among nursing home residents has been increasing. Since 1979, the portion of nursing home residents with major dependencies has climbed from 77 percent to more than 90 percent. And millions of elderly living at home also need help walking, bathing, eating and using the toilet.

Project Independence research should focus on at least three areas: incontinence, mental disorientation and mobility.

Incontinence among the elderly is, according to a 1985 New England Journal of Medicine article, "prevalent, morbid, costly and neglected." It affects 5 to 15 percent of elderly people living in the community, 40 percent of hospitalized patients and more than half those in nursing homes.

More than \$8 billion per year is devoted to caring for 500,000 incontinent elderly in nursing homes. Yet less than half of all patients with serious incontinence seek medical care, and those that do are often told that their problem is the inevitable and incurable result of aging.

An estimated 1.5 million people suffer from severe dementia—the loss of mental function to the point where they require constant care. Up to 5 million more suffer from mild to moderate dementia. The number of people with severe dementia will jump 60 percent by the year 2000. The annual costs of this disease are estimated at \$40 to \$50 billion, yet in 1988, only \$80 million was spent on research on all forms of dementia, including Alzheimer's disease.

Stress induced by loss of mental functions and personality changes is enormous for afflicted individuals and their families. It often leads to illness among caregivers. Such stress can be exacerbated by difficulties in finding and coordinating services to relieve the care-giving burden.

A third area of limitations on the independence of elderly is mobility. Almost 2 million Americans over 65 need help just walking across a small room. In nursing homes, some 60 to 70 percent of patients need help walking. Mobility problems have a variety of causes, including arthritis, osteoporosis, falls and other injuries.

Arthritis is the primary cause of mobility limitations, accounting for 22 percent. Up to 20 million Americans have osteoporosis—"porous bones"—which leaves them highly susceptible to fractures. Elderly women are at special risk—90 percent of all women over 75 suffer this condition. Degenerative joint disease (osteoarthritis) affects some 15

million elderly Americans, more than half of this population.

The medical and economic costs of arthritis alone approach \$9 billion, some \$3.5 billion of which are for the elderly. Last year we invested only \$135 million in arthritis research.

The bulk of informal care is delivered first by spouses, then by children, especially daughters. The burden falls disproportionately on women. The very late onset of most dementing illnesses often means that a woman in her 50s or even late 60s may be the primary caregiver. The efforts of spouses and children are not generally captured by economic surveys—so the big costs of caring are hidden.

Far too little emphasis has been placed on improving design of the home environment through technology for the elderly. The bathroom, for example, is the site of many falls and accidents. We're talking of simple, practical, common sense things: redesigned bathtubs with fold-down sides to avoid climbing; toilets at heights appropriate to the needs of the elderly; non-skid floors; better lighting. Not nearly enough has been done to adapt to the needs of the elderly, techniques developed to assist the handicapped.

The potential payoff of Project Independence for Older Americans is enormous. Each reduction of one month in the average period of dependence for our citizens over 65 means a savings of \$4 billion in health care and custodial costs.

Leading the Way

The Dorothy Adler Geriatric Assessment Center is at the cutting edge of helping the elderly maintain independence and delivering services with compassion and efficiency.

The center takes a comprehensive approach to meeting the needs of the elderly. It assesses an older person's medical, psychological, cognitive and social situation. The center's staff—physicians, psychiatrists, social workers, nurses and community volunteers—work with the patient and his or her personal physician to identify and treat correctable problems.

Each day the center helps patients deal with loss of mobility, memory loss and confusion, incontinence, sleeping difficulties, loss of self-care skills like bathing and dressing, and adverse effects of multiple medications—the real problems of the frail elderly. Treatment might involve alteration or discontinuation of medications which could contribute to confusion, or it could involve medical treatment of incontinence.

Wisely, the center recognizes that the disabilities of the elderly can take as great a toll on the family as on the patient, and gives the family education and support. It locates community resources to help create the best possible living situation for the patient and family.

The center provides role models for doctors in training, and carries on vigorous research to determine what services and combinations of services improve the quality of life for the elderly. In short, the Dorothy Adler Center is a model for the nation.

Let me say a word about the physicians who face elderly patients each day. As key players in a rapidly evolving health care system, doctors have been roughly buffeted by the winds of change. A program like the Adler Center's reminds us of how truly creative, caring and noble this medical profession can be and what a precious asset it is for our people.

We need to support physicians and programs such as this. Of course we need coverage of catastrophic medical events, but we also have to pay for care that is required not to avoid

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Adler Center Touches Lives

Between its inception by two volunteers in 1981 and its dedication as the Dorothy Adler Center in late 1988, the geriatric assessment program has developed into a major resource for the New Haven area's older population and their families.

A joint program between Yale-New Haven Hospital and the School of Medicine, the center serves approximately 90 to 110 patients a month. For each of the past four years, its volume of patients, who are referred by area physicians, has increased by 40 percent.

With people over 85 comprising the fastest-growing segment of the population, the Adler Center staff offers a valuable service: expertise in evaluating persons who suffer medical, psychological, cognitive or social problems associated with old age.

The center emphasizes maintaining the independence of its patients. In some cases, a nursing home stay may be postponed or avoided with a minor adjustment in an individual's medical regimen. Patients may also benefit from community support services of which their caregivers may not have been aware.

Explains Dr. Ron Miller, assistant clinical professor and medical director of the Adler Center: "Our goal is to identify and treat correctable problems and to locate and coordinate community resources that will best serve patients, while taking into account their living situation."

The center's staff includes physicians, a psychiatrist, social workers and nurses, all with special skills in the care of older persons. Social worker Nanne Scholhamer, one of the two volunteers who began the geriatric assessment program in the Primary Care Center in 1981, points out that the program has always worked closely with families and their physicians in patient consultations.

In June 1988 the geriatric assessment center moved into its expanded space in Yale-New Haven Hospital, thanks to a major gift from the Adler family in the memory of Dorothy Adler of Woodbridge, Conn., who was treated at the center in 1983. Support also has come from the Public Welfare Foundation in Washington, D.C.

"Our enhanced facilities and staff should allow us to make a substantial impact on the problems of the elderly in our community," comments Dr. Leo M. Cooney Jr., Humana Foundation Professor of Geriatric Medicine and director of Yale-New Haven's Continuing Care Program.

Concludes Dean Leon E. Rosenberg, one of several speakers at the center's Nov. 6 dedication: "Given our community's great need for a facility such as the Adler Center, it is particularly fitting and gratifying that the School of Medicine and Yale-New Haven Hospital have joined in partnership to develop this program. Drs. Leo Cooney and Ron Miller and their team of caring professionals are to be commended for their fine work."

Dr. Ronald Miller (right), medical director of the Dorothy Adler Center, consults with Bryan Mesh (far left), president of New Haven's Jewish Home for the Aged. The man who sits between them is both a client of the adult day center which is located at the Jewish Home and one of the hundreds of older people treated at the Adler Center every year.



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Pictured at the Adler Center dedication: (from left) Dr. Myron Genel, associate dean for government and community affairs; Dr. Ron Miller, medical director; Dr. Leo M. Cooney Jr., Humana Foundation Professor of Geriatric Medicine; Joseph Califano Jr.; Joseph A. Zaccaginino, Yale-New Haven Hospital executive vice president; Sheila Wellington, University secretary; Vincent Conti, Yale-New Haven Hospital vice president of administration; and C. Thomas Smith, president, Yale-New Haven Hospital.

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imminent death, but to live a life of quality each day.

Our current fragmented health care reimbursement system is inadequate to the task. But there are hopeful signs of change. One is the recent report by Harvard economist William C. Hsiao, Ph.D., which found that office visits and consultations are radically underpaid by Medicare and private insurance companies.

The report, which will be considered by Congress in 1989, proposes that doctors' payment formulas be adjusted to pay more for the kind of consultative services provided by the Adler Center and less for high-tech surgery. Such a change would reduce financial incentives to perform expensive surgery and diagnostic procedures, and boost incentives to listen to and counsel patients and their families.

The most important thing we can do for the elderly doesn't require any research or exotic technology. It's something you see every day at the Adler Center—reaching out and giving the elderly a hand to hold, touching. I am reminded of an incident that taught me more about health care than the thousands of pages of material I studied during my years as secretary of health, education and welfare, or my years since.

In November 1978, 1 met with the great Polish prelate, Stefan Cardinal Wyszynski, at his residence. The cardinal's presence was powerful enough to fill the room, despite the weakness of his voice. "There are too many machines and tubes and wires," he said. "Even with the best machines, people often die or remain sick because they have no human contact, because they do not touch other people. People need contact to be cured."

The work at the Dorothy Adler Center exemplifies a special way of touching that is as important to patients and their health as any drug, any machine, any injection, any super-specialist. With this in mind, we face the challenge of the next 50 years: to minimize and reduce the dependency of an elderly population whose size and life expectancy will be without precedent. It will call upon our compassion, common sense, energy and financial resources.

Most of all, it will call for dedicated doctors, nurses, social workers and volunteers to reach out, try, sometimes fail, try again, work to exhaustion, get frustrated, but try yet again—while always touching, letting the elderly feel the hope of an extended hand. You, as health professionals, are those hands of hope. YM

CLINICAL GENETICS AT YALE: THE FUTURE IS NOW



Research Associate Kenneth Allen, Ph.D., and Postdoctoral Fellow Amy Chang examine a transformation plate with department Chairman Carolyn W. Slayman. The plate is home for a fungus on which the researchers use recombinant DNA technology to study how potassium is transported from the membrane to the interior of the organism's cells. (Photographs by Bill Carter.)

by Nancy Pappas

"The tools we have now were science fiction then," says Kenneth K. Kidd, Ph.D., smiling with bemusement as he recalls the early 1960s when his career began. Dr. Kidd, professor of human genetics, psychiatry and biology, speaks with a sense of pride—and anticipation—that pervades the department of human genetics.

During the 16 years since its inception, the department has grown as dramatically as the field itself. Its 20 full-time members (along with 13 faculty who hold joint appointments) find themselves at the forefront of one of the most rapidly developing fields of biomedical research.

Armed with powerful new molecular technologies, researchers are locating disease-causing genes that have eluded scientists for decades—including the genes implicated in Duchenne's muscular dystrophy, familial Alzheimer's disease and cystic fibrosis, to name a few. For the first time ever, biomedical research offers the promise of definitive diagnosis and therapy of many of the 4,000-odd human diseases known to stem from inherited single-gene defects.

Rapid progress is due to the major breakthrough in genetics over the last decade: the mastery of recombinant DNA

technology. With increasing success, researchers at Yale and elsewhere have learned to manipulate heredity's molecular building blocks for an ever-widening range of scientific and clinical applications.

"Practically everyone here is using this technology in some way or another," says Carolyn Slayman, Ph.D., professor of human genetics and biology, and human genetics chairman since 1984. She adds, "One of the great challenges of medical schools is to speed the transfer of knowledge from the basic sciences to the clinical component. Here, it has worked spectacularly well."

A New Biomedical Frontier

The clinical activities of the department are nearly as varied as the spectrum of inherited diseases itself.

Scientists identified the causes of most bacterial and viral diseases decades ago. Now, technology is enabling researchers to home in on the individual bits of DNA that are responsible

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for inherited disorders—and to develop molecular diagnostic techniques.

Consider, for instance, Professor Kidd's progress in his fight against multiple endocrine neoplasia type II. Victims of this inherited condition develop thyroid or adrenal tumors that can cause sudden bouts of severely high blood pressure. Since the tumors tend to be indolent and asymptomatic until they are well advanced, often the first sign of illness is a lifethreatening hypertensive crisis or the appearance of metastases in bone, liver or lung.

Until now, the only way to know whether the offspring of an affected person was developing the tumors was to subject him or her from early childhood to a lifelong series of uncomfortable, invasive tests. But last year, Professor Kidd and his colleagues mapped the gene for multiple endocrine neoplasia. They subsequently identified a set of DNA probes that indicates which children have inherited the gene and need to be watched closely.

Professor Kidd expects the probe to go into clinical use within a matter of months. "We've gotten up to speed with this diagnostic advance within a year-and-a-half," he says proudly. "That's what's wonderful about human genetics. The benefits of basic research are immediate."



Dr. Margretta Seashore checks on a young patient with phenylketonuria (PKU), the inability to metabolize a common protein. Twenty years ago, this bright, energetic had would have been at risk of severe brain damage before his first birthday. Today, thanks to standard prenatal testing, PKU can be identified early and controlled through diet.

Running the Clinical Gamut

At the School of Medicine, the fruits of such research are applied at the genetic consultation service. "It's hard to characterize our work," observes Dr. Margretta R. Seashore, associate professor of human genetics and pediatrics and director of the inborn errors clinic. "On the same day, you might see a tiny newborn with a severe birth defect and a 65-year-old man with a nerve tumor that is part of an inherited condition."

As one of its most crucial responsibilities, the clinic operates a genetic consultation service for families who know or suspect that a genetic condition has occurred in the family. The clinic cares for many of these patients for years as their genetic ailments play themselves out in chronic symptoms. Its physicians also consult regularly on the inpatient service at Yale-New Haven Hospital to diagnose and treat patients whose conditions may have a genetic cause.

Besides Dr. Seashore, participating physicians include Dr. Maurice J. Mahoney, professor of human genetics, pediatrics and obstetrics/gynecology; Dr. Uta Francke, professor of human genetics and pediatrics; M. Stephen Meyn, M.D., Ph.D., assistant professor of human genetics and pediatrics; Dr. Arthur Horwich, associate professor of human genetics and pediatrics; Dr. W. Roy Breg Jr., professor of human genetics and pediatrics, and Dr. Leon E. Rosenberg, dean and C.N.H. Long Professor of Human Genetics.

Dr. Seashore explains: "Genetic disorders run the whole gamut; any organ can be involved. But for all our patients, the questions are the same: Is this condition inherited? Can it be treated? Are other family members at risk?"

Thanks to advances in genetic research, the answers to each of these questions are clearer today then they were only a few years ago.

Take, for example, neurofibromatosis, a single-gene disorder affecting one in 3,000 people. A longstanding research interest of Dr. Seashore's, the disorder causes numerous tumors to grow on the skin and on nerve sheaths. Many of those affected have mild symptoms that scarcely interfere with their lives. But a few suffer repeated, sometimes disfiguring tumors.

The condition is popularly but inaccurately known as "Elephant Man disease" after John Merrick, the disfigured Englishman whose life inspired the popular play and film. Dr. Seashore points out that Merrick actually suffered from another disease called Proteus syndrome, and the mix-up creates needless anxiety in patients who have neurofibromatosis.

At present, diagnosis of neurofibromatosis must be made on the basis of often-ambiguous clinical symptoms. But, predicts Dr. Seashore, "The tools for molecular diagnosis are very nearly at hand."

Dr. Seashore directs the clinic that cares for many patients with inherited disorders of metabolism, such as phenylketonuria (PKU), a condition characterized by the inability to metabolize the amino acid phenylalanine. Until the 1960s, when the metabolic basis of the disease was discovered, babies born with PKU quickly became profoundly retarded. Now, however, the condition can be diagnosed from a blood sample at birth. If phenylalanine is kept to a bare minimum in their diets, PKU children grow up with normal or near-normal intelligence.

Ironically, the success of this treatment has brought with it a new problem as the first generation of non-retarded children

Mapping the Human Genome

Fifteen years ago, geneticists from all over the world converged on New Haven for Human Gene Mapping Workshop I, the first organized effort to collect in a single place all that was known about human genes. Their combined knowledge produced a slim volume describing about 50 genetic loci.

In the intervening years, eight more such conferences have occurred in this country and abroad. This June, New Haven will again play host, this time to Human Gene Mapping Workshop 10. The resulting book will be somewhat thicker this time: The count of genes with known locations currently stands at about 1,500.

"We expect that will grow to 100,000 or more by the turn of the century," says Frank H. Ruddle, Ph.D., Sterling Professor of Biology and Human Genetics.

When Professor Ruddle and his colleagues organized that first workshop, they couldn't have predicted that less than two decades later, the international scientific community would be preparing a project to map the entire human genome—and that Yale would find itself with a central role in that effort.

Dr. Ruddle's involvement in gene mapping grew out of his own pioneering research. He and his colleagues were the first to develop a transgenic animal—a mouse with cells that carried pieces of spliced-in human DNA. This so-called "mouse system" has become a standard means for investigating genetically based problems ranging from cancer to subtle defects in human developmental biology.

"I got into gene mapping as pure basic biological research," Professor Ruddle recalls. "We just wanted to keep track of developments for our own purposes."

Over the years, as its clinical applications became apparent, this informal database kept pace with growing knowledge in the field. In 1985, the library became a program of the Howard Hughes Medical Institute—the world's largest private research foundation. Now known as the Howard Hughes Human Gene Mapping Library, it has new quarters in New Haven's Science Park. Dr. Ruddle directs the library with a staff of 10, overseeing a computerized database of virtually everything currently known about the human gene map.

"As research goes along, the database becomes cumulatively more powerful," Professor Ruddle points out. Investigators worldwide log into the library free of charge to pull out information on nearly anything relating to the human gene map. They might ask for names of researchers working on a particular chromosome, or a bibliography of scientific articles about a certain gene locus, or a source for a DNA probe for a certain segment of the genome.

As the federal government gears up for its genome mapping project—a systematic effort to sequence the three billion base pairs that make up the total human complement of DNA—the Howard Hughes Gene Mapping library at Science Park stands ready with the most complete collection of information.

For maximum utility, data generated by the genome project should go into "a single standard world database to which everyone contributes," Professor Ruddle says. He adds, with a faint grin, "We hope it will be this one."



As graduate student Allen Feinberg looks ou, Professor Frank Ruddle examines insect cells infected with a genetically engineered insect virus that produces a human homeobox protein. These proteins are thought to play an important role in human fetal development. Mass production of the insect cells allows large quantities of homeobox protein to be purified for study.

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Gwyn Ballard, a postdoctoral fellow (left), and Professor David Ward display a computer-generated image of human t-lymphocytes. The image comprises .5 micron slices of the cells taken electronically through a laser screening flourescent confocal microscope. Flourescent tags within the nuclei of the cells allow researchers to identify abnormalities that underlie a number of inherited diseases, including Burkett's lymphoma.

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with PKU grow up and reach child-bearing age. "We've discovered that if they get pregnant and do not have their diet under exquisite control, their fetuses can sustain profound neurological damage," Dr. Seashore notes.

Prenatal Screening: Better and Earlier

Because of the threat of other inherited diseases, amniocentesis has become standard procedure for many older pregnant women—a fact that tends to obscure the technical precision required to do it properly. Yale's cytogenetics laboratory, headed by Teresa L. Yang-Feng, Ph.D., assistant professor of human genetics, represents the state-of-the-art in prenatal genetic screening.

"We are one of the largest cytogenetic diagnostic laboratories in a medical school setting," Dr. Yang-Feng observes. The laboratory does more than 3,000 cytogenetic analyses a year—about half of them anniocentesis. The rest comprises chorionic villus and fetal blood sampling, and the analysis of blood and bone marrow from patients with suspected chromosome defects, leukemias or lymphomas.

On a tour of the bustling laboratory, the soft-spoken scientist explains that cytogenetic analysis involves a great deal more than simply examining a few cells on a slide.

To analyze a sample of amniotic fluid, for instance, the fetal cells must be carefully cultured to obtain optimal growth

and to yield enough material. A skilled technician must then process the cells to obtain clear pictures of the chromosomes and match them up in pairs to determine whether in number, size and banding pattern, they look normal. This painstaking process takes a minimum of 10 days.

For the past 20 years, prenatal cytogenetic diagnosis depended on amniocentesis, which cannot be performed until the mother has produced sufficient amniotic fluid—typically not until the 15th or 16th week of pregnancy. That's why Dr. Yang-Feng and her colleagues are so excited about chorionic villus sampling (CVS).

Chorionic villus sampling can occur as early as the seventh week. The lab can take a tiny sample of the villi from the edge of the placenta, process it directly, and grow enough fetal cells to make accurate prenatal diagnoses. Results arrive in time for the parents, if they choose, to terminate the pregnancy within the first trimester, when abortions are less traumatic both physically and emotionally.

Yale is one of six medical centers conducting a National Institutes of Health-sponsored clinical trial of CVS. "Our data indicate that the safety of CVS is getting pretty close to that of amniocentesis—a miscarriage rate of less than 2 percent—and the accuracy is pretty high," Dr. Yang-Feng says.

In her view, CVS has shown itself to be a worthy alternative to amniocentesis. Yet even if the other studies confirm her optimism and the government approves the technique, the next challenge will be to make CVS available to patients who don't have access to a sophisticated center

like Yale. This development, Dr. Yang-Feng predicts, will take as long as a decade.

Though in many ways ahead of its time in the technology of clinical genetics, in other ways, the cytogenetics lab has been overtaken by progress. Relying primarily on visualization of chromosomes, even its highly skilled technicians cannot diagnose disorders that occur at the level of the DNA molecule.

That's the job of the department's newest laboratory—the DNA diagnostic lab opened in 1987. Using DNA probes that stick to affected parts of the genes, the laboratory is capable of prenatal diagnosis of Duchenne's muscular dystrophy, OTC deficiency (a grave inherited metabolic defect) and fragile X syndrome, a subtle malformation of the X chromosome that can cause retardation in sons.

To oversee a workload expected to grow exponentially as new DNA probes are developed, the department has appointed Dr. Allan Bale, formerly of the National Institutes of Health, as an assistant professor and director of the DNA diagnostic laboratory. Soon, Dr. Bale predicts, the lab will add certain cancer predisposition syndromes and several other inherited diseases to its list of diagnosable disorders.

Decorated DNA Debuts

Advanced as Yale's cytogenetic diagnostic lab is, it labors under a burdensome limitation: the need to catch cells in the process of dividing to view their chromosomes properly. In these so-called metaphase cells, the chromosomes separate and pull neatly apart, making it possible to view them through a microscope.

In interphase cells, those that aren't dividing—the vast majority in any given sample of tissue or fluid—the chromosomes are tightly bunched together in a visually undifferentiated mass. The need to culture tissue samples to acquire an adequate supply of metaphase cells accounts for the long delay between sample extraction and result in CVS and amniocentesis.

Because of this drawback, David C. Ward, Ph.D., professor of human genetics and molecular biophysics and biochemistry, has invented an elegant technique for diagnosing chromosomal anomalies in interphase cells. Called chromosomal in situ suppression (CISS) hybridization, the technique can cut the wait from sampling to diagnosis to less than a day.

"We have demonstrated that the diagnosis of numerical chromosome anomalies, like Down syndrome, can be done in hours rather than days," the smiling Professor Ward says.

Simply put, the technique involves labeling target genes or chromosomes with a probe hooked up to a fluorescent dye. Under a microscope, the DNA thus decorated stands out like a glowing Christmas tree light.

Professor Ward pulls out a picture of a CISS hybridization probe for chromosome 21, the one responsible for Down syndrome (featured on the cover). In the normal cell, the nucleus contains two tiny points of blue light. In the aberrant cell, there are three points of light—signifying the trisomy that results in Down syndrome.

Though this technique may look elegantly simple, the work leading up to it was anything but. Professor Ward and his laboratory team first had to show that chromosomes occupied separate "domains" even when they are coiled within interphase cells. Then they had to laboriously sort through huge libraries of DNA probes to find the ones that adhered exclusively to targeted chromosomes or genes.

The lab is currently developing a series of probes, each

labeled with a different color, to rapidly screen fetal cells for several anomalies at once. So far, there are probes for chromosomes 13, 18, 21, X and Y, the ones responsible for the most numerical chromosomal anomalies.

The labeling technique can also be used for:

- rapid identification of chromosomal translocations, where two or more chromosomes trade pieces;
- identification of individual genes in cell nuclei (the team is already capable of lighting up the large gene for Duchenne's muscular dystrophy);
- direct screening of whole blood cells for malignancies.

Next, Professor Ward and his colleagues plan to build an automated CISS hybridization device that can attach probes to cells and optically scan the results. If the system works as expected, it will one day be possible for a woman seven weeks pregnant to have a chorionic villus biopsy and get the results the same day. When will this new technology debut?

Professor Ward replies: "A couple of years, maybe." So the rapid pace of modern genetics rolls along.

Gene Therapy: The Ultimate Goal

Another glimpse into the future—and into the high drama of human genetics—can be found in the office of Dr. Arthur L. Horwich, assistant professor of human genetics and pediatrics. Resting near a clutter of papers on a table is a framed picture of a cherubic baby girl, along with a letter from her parents thanking him for helping to save her life.



Martina Brueckner, M.D., Ph.D., a pediatric cardiologist and postdoctoral fellow, discusses some data with colleague Dr. Arthur Horwich. Dr. Brueckner is pursuing the gene that causes organs to be reversed in the body cavity of a certain strain of mice. Her research is simplified by the pulse field gel apparatus on which her arm rests. Conventional gel machines can separate only short strings containing about 8,000 base pairs of DNA. The pulse field apparatus can separate strings of up to 5 million base pairs.

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In 1984 Carolyn W. Slayman, Ph.D., became the first woman to assume a medical school department chair at Yale when she was appointed to lead human genetics. Her department, she predicts, will play an active role in the emerging field of gene therapy and in future efforts to map and sequence the human genome.

The child was born with a single-gene enzyme defect called hereditary tyrosinemia. Soon after her birth, the condition destroyed her liver. Thanks to a successful liver transplant at Yale-New Haven Hospital, the little girl survived and is now a lively preschooler.

But to Dr. Horwich, a slight, intense man, an organ transplant—lifesaving though it may be—is akin to using a hammer to swat a fly.

"A transplant is not a perfect approach," he frets. "We ultimately have to do better than giving people transplants and subjecting them to lifelong immunosuppression."

Dr. Horwich and his colleagues are working on a way of doing better: giving patients with single-gene defects functioning copies of healthy genes to instruct their bodies to produce normal versions of the missing enzyme or protein.

"We're talking about somatic therapy—transferring genes into non-germ cell types," Dr. Horwich explains.

Two decades ago, his goal would have seemed like a pipe dream. Now, though formidable obstacles remain, Dr. Horwich reckons it's achievable within the foreseeable future.

Though he is but one of hundreds of investigators worldwide who are searching for a practical means of replacing defective genes, Dr. Horwich's work is different than most in one critical way: the choice of a vehicle on which to carry the replacement gene into the cell nucleus.

Most researchers have chosen retroviruses for this purpose. It's a logical approach; retroviruses work by inserting their own genetic instructions into the DNA of the host cell. At least in theory, the desirable gene merely need be attached to the virus as a sort of molecular hitchhiker.

Trouble is, Dr. Horwich points out, nobody has been able to get this system to work. Therefore he and his colleagues have chosen another kind of virus—hepatitis B virus—as their vector for potentially delivering genes to the liver.

The genetic disease he and his colleagues would like most to treat is a deadly enzyme condition called ornithine transcarbamylase (OTC) deficiency, an inherited deficiency of a liver enzyme that results in a rapid, toxic buildup of ammonia in an affected newborn baby.

"It's a very neurotoxic substance that usually causes the healthy looking baby to lapse abruptly into a deep coma and die," Dr. Horwich says. "Dr. Rosenberg, myself and our colleagues have cloned and analyzed the gene and are able to diagnose it prenatally for families affected with the condition. But the only therapy right now is to prevent ammonia production by using a protein-restricted diet and to remove excess ammonia with drugs. Even then, the affected kids often exhibit developmental disability."

Based on the initial work with the hepatitis virus, Dr. Horwich hopes that recombinant virus will offer a new therapeutic avenue in genetic medicine.

"We've seen this disorder kill young infants, and would love to be able to offer a new type of definitive therapy for it."

Given the pace of progress in the field, what developments does department chairman Slayman see on the horizon?

She comments: "During the next 10 to 15 years, we can expect a rapid accumulation of new knowledge as the complete human genome is mapped and sequenced. This mammoth project, now being launched with special funds appropriated by Congress, will help us understand the structure and function of normal genes as well as the kinds of mutations that lead to disease. At the same time, there will be more gradual progress towards the goal of gene therapy. Yale's department of human genetics will be an active participant in both of these areas." YM

I HAVE DONE THAT, MRS. ROOSEVELT

by Dr. Fred Collier '46

I was fortunate in my choice of parents. My dad was Washburn College's professor of educational psychology, and I, his only child, was his laboratory. By the time I entered high school, my parents had taught me at breakfast enough Latin to be admitted to the third year class, enough German for admission to the second year, and enough sociology, philosophy, Greek, and ancient and American history to receive high school credit for each of these subjects. I never failed to learn more in the two hours of breakfast than I did during the entire rest of the day.

We never thought we were poor; it was just that we didn't have any money, and if I was to attend a university, it was necessary that I obtain a scholarship. The fact that I received scholarships to Yale, Harvard, Princeton, Oberlin and the University of Kansas was no tribute to me, but to my parents, who taught and coached me.

I have always been delighted that I went to Yale College, where I retained my scholarship throughout my undergraduate days. When we entered World War II, midway in my

sophomore year, Dr. Daniel Merriman, the advisor for premedical students, urged us not to remain for the full four academic years, but to enter medical school after the third year of college. By following his advice, I would be able to enter the armed forces more quickly and retain my scholarship for the first year of medical school.

Shortly after I entered the Yale School of Medicine, all medical students were commissioned in the Army or Navy reserve. Three months later, the Army formed its Specialized Training Program (ASTP), and students went on active duty as privates assigned to the medical schools they were attending. We received full tuition, room, board, books and \$60 a month. The group at Yale was designated Company "C", SCSU 1121, ASTP.

No Defects

I remained in the ASTP until July 4, 1945, following "V-E Day," by which time the Army had carefully scrutinized all



A wartime wedding portrait. Back row (from left) Carl Cook '46; C.H. Long, Jr. '44; Arno King; Gus Lindstrom; D.P. Shedd '44S, '44; Robert W. Cooper '46. Middle row: Francis G. Reilly '46; Ann Bono Rose '46 MN. Names of the three bridesmaids not given. Front row: Fred and Rosalie Collier, and Dr. Collier's father, T.L. Collier, Ph.D. (Photographs courtesy of the author.)

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officer candidates and dropped any with physical defects, no mater how minor. Fully 10 percent of our unit, myself included, was discharged for such things as myopia, asthma, pes planus and so forth. Most men relished being discharged from the services. With me, such was not the case.

A year before, my fiance Rosalie and I had received our parents' blessing for marriage, which we could barely afford by virtue of my being in the ASTP and Rosalie's being a Cadet Student Nurse, which gave her \$20 per month. In June, we went to Virginia for interviews for internship. On our return, I learned to my dismay that I was to report the following morning for discharge. My financial situation now boded to be of crisis proportions. Not only was I an instant pauper, but I was faced with the tremendous expenses of tuition and living.

Mr. Spivak, who owned our apartment building, gave me a job as janitor, which paid for our rent. I quickly lined up 10 lawns to mow in Hamden (using lawn mowers owned by the householders), and got a job loading ice on Good Humor trucks at night. In the summer of 1945 I was assigned to clinics, which gave me mornings free from the medical school and hospital. When I learned there was a route open for a Good Humor salesman, I applied and was immediately hired for this more lucrative—and warmer—position.

It was fortuitous that my route was adjacent to the medical center. I was able to don my white uniform in the morning and sell Good Humors to customers whom I, in the same white uniform, treated in the clinics in the afternoon. All went well for a couple of weeks until Donald H. Barron, Ph.D., assistant dean, came by one day, stopped at my truck and asked what the hell I was doing. I replied by asking whether he wanted toasted almond or chocolate malted. He didn't think this was funny and said to return the truck and uniform immediately and report to his office Monday morning.

After returning the truck and uniform, I decided to stop at Phil's Barber Shop on York Street, next door to Mory's. In the barber's chair, I idly thumbed through *PIC*, a magazine which was sort of a precursor of today's *Playboy*. Under a picture of a lightly clad dancer named Josephine Szabo from Cleveland, Ohio, was a caption that Mrs. Eleanor Roosevelt had arranged to support her studies at the Julliard School of Music.

It occurred to me that if Mrs. Roosevelt could support this girl who was not yet enrolled at Julliard, she might be able to help me through the financial straits of my last year of medical school.

While Phil was snipping and chatting away, I fantasized that if only Mrs. Roosevelt knew of my problem—how close I was to graduation and what was required to accomplish this—surely this great lady would help me. The big question was how I could inform her of my plight.

After my haircut, I paid Phil the 40 cents and, feeling that fortune would smile upon me, I gave him a 10 cent tip—the first tip I had ever given a barber. I then bicycled back to our apartment, which was in the attic of the building housing doctors' offices in the basement and first floor, and apartments on the second floor and attic.

Intriguing Letters

Franklin Roosevelt had died in April of 1945, and I was not certain where to address a letter to Mrs. Roosevelt, but Rosalie suggested Hyde Park. I wrote the letter, craftily constructed so as not to let her know exactly what I wanted, but hopefully, to make it so intriguing that she would want to meet me, to find out what I really was after.

August 3, 1945 Mrs. Eleanor Roosevelt Hyde Park, New York

Dear Mrs. Roosevelt:

I am a fourth-year medical student to be graduated in March. Inasmuch as I failed to pass the qualifying physical examination for Army officers, I was discharged last month. Unfortunately, I acquired not only a civilian status, but a considerable personal problem as well.

Realizing how heavily engaged you must be, I have hesitated to write to you. After several discussions, however, my wife pointed out that the worst that could happen would be that you could say, "No." Accordingly, I have decided to impose on you by asking permission to visit with you for about half an hour to ask for some sorely needed advice.

I have no credentials to present to you and I am certain you would not remember any of the Yale freshmen who met you when you addressed our Forum in 1940. My heartfelt gratitude is the only thing I have to offer should you consent to an interview at any time convenient for you.

I know you must receive many such letters daily, so I shall understand if it won't be possible for you to see me. Like all of the other letter-writers, however, I am guilty of hoping that I will be the exception.

Thanking you for your kindness, I am

Sincerely yours,

Fred Collier 333 Cedar Street New Haven, Connecticut

Almost 41 years to the day after my letter was sent to Mrs. Roosevelt, at the suggestion of her former secretary, Miss Maureen Coor, I went to the Roosevelt Library in Hyde Park to see if by any chance my original letter to her was on file.

It was.

In the upper right hand corner of my letter, and in Mrs. Roosevelt's distinctive handwriting, was a note —

"Glad to see him next week about 5:00 p.m. but write me day [ahead] so I can change anything I've set up to make it possible. I don't quite see how I can help him. I have no influence with the Army or medical circles but will try. E.R."

—instructions to Miss Malvina Thompson, her secretary at the time, who composed and typed the letter Mrs. Roosevelt signed. My mission succeeded!

In a few days came the first of many letters from Mrs. Roosevelt. The letter with her franking signature was received by Mrs. Edelstein, who manned the mail and reception desk for the doctors' offices. Her curiosity, piqued at the moment, was to become more intense in the months that followed, with more letters and a personal visit.

In the letter, Mrs. Roosevelt stated that she did not know exactly why I wanted to see her, but that she would see me at 5 p.m., August 9, in her apartment on Washington Square in New York City.



A photograph of Eleanor Roosevelt that she sent to the newlywed Colliers in 1946.

Ten Feet Tall

I arrived at Mrs. Roosevelt's apartment house on that date at about five minutes to five. At the door, a somewhat skeptical doorman called her apartment and confirmed my appointment.

As I entered the elevator, he pushed the button for number six. At the sixth floor, the door was opened by Mrs. Roosevelt, who seemed to be at least ten feet tall. She was dressed in black—black dress, black stockings, black shoes—though the somber nature of her garb was contrasted by the brilliance of her smile and her eyes. The word "gracious" assumed new proportions for me from that moment on. Mrs. Roosevelt invited me in and asked me if I would like a drink.

It was hot, and neither the New York, New Haven and Hartford, nor the subway were air conditioned, so I thought a glass of iced tea would be great. She left the room and came back a moment later with a tall frosty glass of iced tea and asked me to tell her about my problem.

She smiled in a kindly, motherly fashion when I explained that it had taken half of my nerve to write to her and the other half to take the elevator. I explained my dilemma to her and she replied that she received numerous requests from people needing help and that she had to ascertain the validity and propriety of each request before acting on it.

She asked me if I knew anyone who knew her who might write to her in my behalf. I told her it was most unlikely. She thought we probably had some friends in common and asked me if I knew the director of admissions at Yale, Edward S. Noyes. I knew Professor Noyes, but was not sure that I knew him that well. She asked me if I knew the remarkable Harry Sylvestre Nutting Greene, professor of pathology. I felt reasonably certain that he knew me well enough so that I could ask him to write a letter for me.

Mrs. Roosevelt wanted to know if perhaps 1 knew James Rowland Angell, president emeritus of Yale, who had given her husband an honorary degree in 1934. 1 knew President Angell fairly well because I had dated his stepdaughter when I was an undergraduate and had spent many delightful Sundays at his house.

Mrs. Roosevelt suggested that I ask these men of eminence to write to her in my behalf. She said that she knew people who could be of great help to me, but, unfortunately, it would be easier to ask philanthropist Bernard Baruch for five million dollars for a university than for five hundred dollars for a student.

President Angell and Dr. Greene were both in New Haven and agreed to write Mrs. Roosevelt; Harry Greene, the most humorous professor we had at the medical school, asked me "Should I address her as 'Dear Madam Ex-President' or 'Dear Eleanor' or what?" I wrote to Mr. Noyes at his summer place in Squirrel Island, Maine, and he also sent a supporting letter to Mrs. Roosevelt.

Liquid Assets

About a week after I returned from New York, a note from Mrs. Roosevelt enclosed a check for \$500 from Bernard Baruch. I presented it to Miss Bunting, the tall, spare, plainly dressed woman of 60 who had been tending my little savings passbook for the past six years. She did not bat an eye behind her pince nez as she deposited the check, despite its famous signature—and the fact that my account had not totalled more than \$25 until that moment.

The next day, an envelope from Mrs. Roosevelt enclosed her check for \$500, which I also took to Miss Bunting. A few days later, I received a letter from Mrs. Roosevelt saying that each August, Mrs. Rowan T. Boone of Princeton gave her \$500 to use for someone else's good, and she was sending that to me as well.

In rapid succession I received checks from Sen. Herbert Lehman and, again, from Mrs. Roosevelt. The procession of checks eventually proved too much for even Miss Bunting to handle with her characteristic aplomb. When I deposited the third check from Mrs. Roosevelt, Miss Bunting removed her pince nez and said rather dispassionately that she could not help but notice who had signed the checks that I had been depositing lately. The question, not expressed, but obviously implied, was that I should offer some explanation. I simply agreed with her that she "could not help but notice who signed the checks."

A couple weeks later, Rosalie received a package from a shop called Arnold Constable, a store we could not have afforded to walk by. The package, from Mrs. Roosevelt, contained a beautiful white piped charcoal gray maternity suit with enough matching material for Rosalie to make a skirt after the baby was born, and lovely black top coat.

A week or so later, Mrs. Roosevelt wrote us that she was going to be in Connecticut to visit friends and would like to call on us. Delighted, I wrote asking her the approximate time of her arrival so that I could wait for her downstairs and bring her up to our apartment, which would be difficult to find for

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the first time. She replied that she was not sure of the time, but with directions, she could certainly find her way. I assumed that since Mrs. Roosevelt had probably visited every place in the world except the South Pole, she could cope with the mysteries of New Haven's 1204 Chapel St.

Our apartment had belonged to a procession of medical students, and it had not been painted since Tom Cook rented it in 1940. Just prior to that, Mr. Spivak, whose nephew was Charlie Spivak, the famous band leader, had bought the building and converted the attic into two apartments. In the week before Mrs. Roosevelt's visit, my pregnant wife, who certainly should not have done so, painted the apartment.

Our totally unmatched furniture had been passed down from medical student to medical student, aside from the table and three chairs we had purchased unpainted at the railroad salvage. We must have been in our Chinese phase then, for we painted the horizontal surfaces of the tale and chairs flat black, and the edges flaming tangerine-red.

Vanishing Door Act

I gave Mrs. Roosevelt detailed instructions, telling her to walk around Mrs. Edelstein's desk, up the stairs to the second floor where she should turn towards the front of the house. In the northwest corner she should push on that portion of the wall that opened to form a door to the attic. The door was difficult to locate because the adjacent segments of wallpaper had been so meticulously matched.

Rosalie had borrowed three cups, saucers and dessert plates of the same pattern, so we were all set!

Mrs. Roosevelt arrived about three o'clock and walked by Mrs. Edelstein, who sat paralyzed by instant recognition at the reception desk. On the second floor, however, Mrs. Roosevelt could not find the portion of the wall that opened up to the stairs. She knocked at the apartment occupied by our neighbor Helen Bonds and asked if she knew where Mr. and Mrs. Collier lived. Helen's jaw dropped. Speechless, she could only point to the ceiling. When Mrs. Roosevelt asked how to get where she was pointing, Helen, still speechless, pushed on the wall, showed her the stairs, and up Mrs. Roosevelt came.

Our guest had just seated herself on one of the three army surplus store cots we called couches when the door burst open and in ran Helen gasping excitedly, "You're Mrs. Roosevelt, aren't you. I've always wanted to shake your hand." She grabbed Mrs. Roosevelt's right hand and almost disarticulated her arm and shoulder. Then, as abruptly as she came, she left. We apologized to Mrs. Roosevelt, who said she understood and not to worry about it.

Eleanor Roosevelt, the most gifted and delightful conversationalist I have ever met, then started to discuss children, since our first was expected in January. She cautioned us to give the baby adequate exposure to life's problems, and told a story of her daughter-in-law, the former Ethel duPont. Mrs. Roosevelt's son Franklin Jr. had come into the Boston Navy Yard on his destroyer and called his wife, Ethel, to tell her that he was berthed there for two weeks and suggested that she come to Boston. Ethel, however, did not know how to go about buying a train ticket, and Franklin had to explain to her how!

Surprising Conversation

Mrs. Roosevelt then cautioned us about keeping the baby away from infectious disease, though she pointed out that there was some merit in babies contracting certain infectious diseases at an early age. She told us that her attention had been drawn to an article published by N. MacAlester Gregg, M.D., in the *Transactions of the Australian Ophthalmologic Journal* for November 1943. The article noted that children of women who had not had German measles in childhood, but contracted the disease during the first trimester of gestation, often had congenital cataracts.

I could hardly believe Mrs. Roosevelt had read this obscure journal. As soon as she left, I raced on my bicycle to the Medical Library to check out the article. She was correct as to reference, author, subject, conclusions and date.

In the years that followed, I sent Mrs. Roosevelt a reprint of each paper I authored. She never failed to write and comment about my efforts. Sometimes, the subjects upon which I wrote were so arcane that I really did not expect her to read the papers. However, I did want her to know that I was publishing. Often times she wrote that she had discussed a paper of mine with one of her many friends who were physicians or teachers in medical schools. Years after her death, her lovely and vibrant secretary, Maureen Coor, said that Mrs. Roosevelt thoroughly enjoyed receiving my papers and read each diligently.

Mrs. Roosevelt's financial assistance to me, in the form of unscheduled, gratefully received checks, continued throughout my internship. I saw her one time before I entered general practice with a view toward saving money for completing my residency. I was considering starting a residency for an additional four years, which would have put me deeply in debt. She said she could support me for this period, but I, still untried in the area of finance, felt it would be impossible. I told her I even wondered how I would be able to repay her for the help she had already given me. She explained that repaying her was not necessary or desirable, but that she would like me to help someone else who was deserving when I was in a position to do so.

l have done that, Mrs. Roosevelt. YM

Dr. Fred C. Collier '46 is adjunct professor of pathology at Fairleigh S. Dickinson Jr. College of Dental Medicine, Teaneck, N.J.



The author, engaged in one of his favorite pastimes.

A NEW COMMITMENT TO MEDICAL SCHOOL WOMEN



Associate Research Scientist Renata Horton, a postdoctoral fellow, is studying tissue factor with Professor William Konigsberg and colleagues. Tissue factor is believed to be the physiological initiator of blood coagulation. Now that the Konigsberg team has isolated the gene for human tissue factor, Dr. Horton is introducing the protein into the cells of other mammals to examine its transport and expression. (Photographs by James Anderson.)

by Susan Okula

Editor's note: In October 1988, an eight-member School of Medicine task force on women faculty, chaired by Dr. James L. Boyer, professor of medicine, delivered its report. The document's 13 recommendations (see page 22, "Women in Medicine at Yale: Yesterday, Today and Tomorrow") include a call to increase the number of full-time tenured women faculty by 11 to 16—to the 12 percent level—by the year

1993, from the current level of 7 percent. It also suggests ways to make the medical school environment more supportive of women, including those with children. All 13 recommendations have been endorsed by Dean Leon E. Rosenberg and the school's Board of Permanent Officers. In keeping with the spirit of the task force, YALE MEDICINE profiles five junior faculty women at the School of Medicine.

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Susan Hockfield, Ph.D., assistant professor of neuroanatomy, credits mentors with helping shape her career. In the early 1980s, as a postdoctoral fellow at the Cold Spring Harbor Laboratory, she was influenced by Nobel Prize winners James Watson and Barbara McClintock. Today she studies the physiology of critical periods in young animals.

Dr. Margaret Johnson Bia, associate professor of medicine, believes in the power of mentorship. A testament to that belief hangs on the wall of her office: a portrait of the late Dr. Donna McCurdy, a nephrologist for whom Dr. Bia worked as a renal fellow at the University of Pennsylvania, and whom she considers her role model.

Dr. Bia stresses the importance of women mentors to their female students in a profession long dominated by men: "There were as few women on medical school faculties then as there are now. I looked up to her in a great way. At all times, among all the other principles that she operated on, she was a great human being. She put the human qualities first."

That's a philosophy Dr. Bia strives to emulate—apparently with success. Her Francis Gilman Blake Award, given by the 1984 graduating class to the faculty member they considered "the most outstanding teacher of the medical sciences," was followed in 1988 by the department of internal medicine's Housestaff Teaching Award.

On the School of Medicine faculty since 1978, she has also distinguished herself as director of transplant nephrology at Yale-New Haven Hospital and as a clinical investigator. Her recent studies have evaluated kidney function tests, and the effects of various drugs both on kidney function of transplant patients and on bone disease in dialysis patients.

Although she herself does not perform transplant surgery, Dr. Bia observes, "I enjoy caring for transplant patients. There's a lot of satisfaction in helping somebody with a new lease on life because of a kidney transplant that works."

Footsteps of the Legends

Susan Hockfield, an assistant professor of neuroanatomy, also credits mentors with helping to shape her career. Between 1981 and 1985, not long after she received her Ph.D. in anatomy from Georgetown University, she began her research career at the Cold Spring Harbor Laboratory on Long Island. Here she worked under its director Dr. James Watson and met researcher Dr. Barbara McClintock, both Nobel Prize winners.

"They have truly global views of biology and how it has developed in the last 100 years," Dr. Hockfield observes. "It was a tremendous influence to consider biology from each of their perspectives as a unified endeavor."

Today Dr. Hockfield, a respected researcher in her own right, runs a laboratory employing seven full-time people with grants totalling more than \$200,000 annually from the National Science Foundation, the National Institutes of Health (NIH) and the Esther A. and Joseph Klingenstein Fund. The laboratory is investigating the differentiation of the nervous system in young animals, such as hamsters.

As she and her colleagues study the development of visual and neuromuscular systems, they are trying to discern the molecular changes that characterize the systems' critical periods. In critical periods, permanent connections are established between the cells of the nervous system based on early postnatal experiences. "Using hybridoma technology, we are looking for molecules that discriminate between a

normal and an abnormal, or immature and mature neuron," Dr. Hockfield notes.

Through her research, Dr. Hockfield describes analogous molecular changes that define critical periods in the animal systems she is studying. In the long term, she hopes to look for similar changes in other brain systems that may define their critical periods. "Perhaps we're paving the way for the day when we can go to the language part of the human brain and map out the critical period as it occurs there," she says with a hopeful glint in her eye.

For the first two years as a School of Medicine surgeon, Dr. Setsuko Kuki Chambers, assistant professor of obstetrics and gynecology, emphasized the clinical aspect of her career, as does Dr. Bia. However, since July 1988, her daily routine has resembled that of her research colleague Dr. Hockfield.

Dr. Chambers' customary practice as a clinician and teacher specializing in gynecologic oncology was to work 14-hour days, performing major surgery and providing long-term care for her patients. The Brown University medical graduate also taught in the operating room and in floor and sit-down rounds.

In July, however, Dr. Chambers changed her emphasis to research as the recipient of a two-year, \$122,000 Reproductive Scientist Training Fellowship from the NIH and the American College of Obstetrics and Gynecology.

"I'm doing research as a way of learning molecular genetics," an increasingly important field in cancer research, Dr. Chambers explains. She is looking for a link between cancer and the sodium potassium ATPase pump, which maintains ionic differentials in cell membranes. When the grant period ends, Dr. Chambers expects to return to the operating room, but she also plans to integrate her clinical cancer care and her gynecologic research.

From Clotted Blood to Fevered Brains

Two other young scientists, Renata Horton and Rebeca Rico-Hesse, both Ph.D.s, further illustrate the extraordinary range and sophistication of research undertaken by women at the medical school.

Associate Research Scientist Renata Horton, a postdoctoral fellow, is working in the laboratory of William Konigsberg, Ph.D., professor of molecular biophysics and biochemistry and human genetics. The lab is investigating a blood-clotting protein called tissue factor, considered by many to be the predominant pathway for blood coagulation. Dr. Horton is looking at the cell biology of tissue factor.

"Two major questions remain unresolved in the field of clotting research: the mechanism by which the process is initiated and the mechanism by which it is controlled," she explains. Tissue factor is involved with initiation, and Dr. Horton's research is examining what effect DNA mutations have on the transport of this protein in human tissue.

Dr. Rico-Hesse, and assistant professor, won for the University a five-year, \$350,000 NIH grant that she will use to continue research on the Venezuelan equine encephalitis, or VEE, virus, the subject of her dissertation at Cornell University. She plans to return to the field work that took her to remote Colombian rain forests in 1983. Along with several colleagues, she examined bats, wild animals and laboratory hamsters to determine the prevalence and transmission pattern of the mosquito-borne virus. At Yale, Dr. Rico-Hesse will investigate whether dormant VEE viruses can mutate to cause human and equine epidemics.

The virologist also has a \$30,000 grant from the

Rockefeller Foundation to work on the molecular epidemiology of the dengue virus, which produces severe flulike symptoms and hemorrhaging, and is a leading cause of death among children in tropical regions. She wants to pattern the dengue research on a project she did at the CDC, where she developed a "family tree" of polio viruses, based on RNA sequencing techniques.

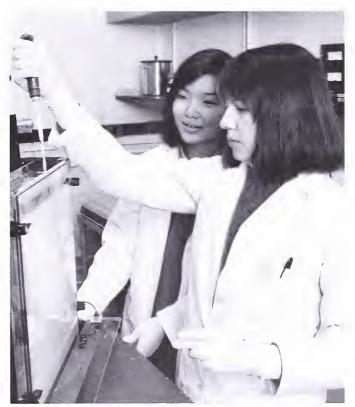
Challenges of the Family Way

These brief professional profiles only hint at the long hours, hard work and personal sacrifice that come with the territory of being a faculty member at a leading medical school. But the work these women undertake so diligently is not the only important part of their lives. No matter how ambitious their career goals, each of the women emphasized the importance of having time to sustain personal relationships outside of work. None of them thought it fair that they might have to give up family life for the sake of their profession.

When it comes to having children, a critical issue is the clash between tenure requirements and the biological clock. Tenure-track positions require successful grantsmanship, quality research and regular publication, often heaped on top of clinical demands for the physicians.

At the same time, many junior faculty women are in their 30s and facing the fact that their childbearing years are limited. It takes a modern-day "superwoman" to combine the work load of a tenure-track position with the rearing of young children.

In the words of Dr. Chambers, "Frankly, the childcare



Rebeca Rico-Hesse (right), shows Woan Ru Chen, a doctoral student from Taiwan, how to load a gel for electrophoresis. Electrophoresis allows the researchers to determine the nucleotide sequence for dengue viruses which are sent to them from around the world. By studying the organization of nucleotides—the building blocks of genetic organization—Dr. Rico-Hesse hopes to help combat dengue, a killer of children in the Third World.

issues are so overwhelming that they can almost stop you dead from considering having a child." Dr. Chambers, age 33, and her husband, Associate Professor Joseph T. Chambers, M.D., Ph.D., are childless.

Dr. Hockfield, who at age 37 is engaged, concurs that women who have managed to secure tenure while having children "are very unusual." She adds, "The pressure's exacerbated by not knowing where you are going to live in seven years. And no one can deny the issue of 'Are you allowed to slow down for a year or two to have a family?' Does that derail you entirely or might there be a mechanism by which you can do that?"

"You know, you want everything," Dr. Bia comments, laughing. Married for over 20 years to Associate Professor Dr. Frank J. Bia, she had her first child, Jesse, two years ago, and now is expecting another baby.

Sobering, she adds, "Even though I know there are a lot of men that love having their children and are wonderful fathers, the truth still is that it usually takes a lot more out of a woman to rear a child than it does out of a man."

The Bias have hired a live-in caretaker for their son to accommodate their long work schedules, but quality and affordable childcare remain a difficult issue for others.

The Phyllis Bodel Infant-Toddler Program, the School of Medicine's on-site daycare center, has a six- to eight-month waiting list, accommodates children only to the age of 3 and has relatively short hours—8 a.m. to 5:30 p.m.—for physicians and researchers whose hours may not conform to a traditional work day.

Despite the free rent, utility costs and maintenance the center receives from the University, it is relatively expensive—\$680 per month per child. Program Director Debra Vollmer says some junior faculty members must stretch financially to afford the center.

Two task force recommendations address family issues. One suggests the development of a comprehensive childcare program that is either free or at least more substantially subsidized. The other recommendation encourages flexible career alternatives that allow faculty members to either stop or slow the tenure clock to accommodate the early years of childrearing. "A gap in the activity of an individual who is raising a family should not be considered evidence of a lack of ability, interest or ambition," the report submits.

Dr. Bia applauds such measures: "Yale is not going to get women who are all workaholics. If they really want to compete for the best women, they're going to have to attract those who may want to have children at the same time."

Minority Considerations

If making the medical school more hospitable to women will involve the investment of time, creativity and money, making minority women feel more at home in a traditionally white male institution presents even more of a challenge.

Of the five women interviewed, two, Drs. Horton and Rico-Hesse, come from minority groups. Both report difficulty in adapting to the School of Medicine's social environment

Dr. Horton, who came to Yale in 1985, attended college at Johnson C. Smith University in Charlotte, N.C., an all-black institution. A Ph.D. in genetics and two years of a postdoctoral fellowship followed at the University of North Carolina at Chapel Hill.

Referring to her days at Johnson C. Smith, Dr. Horton explains, "When you're in a minority institution you get a lot of support. You're told, 'Oh, sure you can do it, sure you can

Perception Bias May Add to Nationwide Tenure Disparity

The underrepresentation of women among tenured faculty members is a national problem. A study in the Dec. 15, 1988 issue of the *New England Journal of Medicine* showed that although the number of women in full-time faculty positions in medical schools has increased from 15 percent to 19 percent in the last 10 years, the percentage of female faculty members who are full professors has changed only from 8 percent to 9 percent. This compares with 32 percent of male faculty who held tenure in 1988.

By and large, leading schools of medicine fall into a similar pattern. The task force noted that as of 1985, although an impressive 16 percent of Columbia's medical school senior faculty were women, at the University of Pennsylvania the figure stood at 8 percent; at Stanford 6 percent and at Harvard, 4 percent. Today at Yale, of 267 tenured medical school faculty members, 19, or 7 percent, are women.

The report notes that a contributing factor to this disparity between the sexes is perception bias—in which professional women are regarded, sometimes unconsciously, as less powerful and less effective than their male colleagues.

In an article for Connecticut Medicine, Merle Waxman, Yale's director of the Office for Women in Medicine, cites several studies that document perception bias throughout academia. Among the findings she notes: Men are promoted and tenured more often and more quickly than women with comparable credentials; chairs of academic departments evaluating CVs of Ph.D.s suggested an average rank of assistant professor for women while the very same records merited associate professor status for men; in a review of articles identical except for the name of the writer, those with male authors were rated as "better" and "more significant" than those with female authors.

The School of Medicine task force report indicates that many women faculty members at Yale believe the disadvantages of gender go beyond perception bias. A 1987–88 survey of ladder faculty who left the School of Medicine between 1981 and 1986 showed that a greater percentage of women than men felt they would not get tenure and also felt discriminated against.

Among other problems, such a reputation diminishes Yale's competitive appeal to talented professionals who also consider the private sector for employment. Some women faculty members say that many female M.D.s and Ph.D.s leave academia because they perceive broader opportunities and more security in private practice or in industry.

do it." She credits, for instance, her participation in the Minority Access to Research Careers (MARC) program while in college for triggering her interest in genetics.

By contrast, Dr. Horton says she often feels isolated at Yale both as a black and as a woman. To begin with, she knows of no other blacks in the molecular biophysics and biochemistry department. Regarding the atmosphere for women in science, she notes, "Because it is a male-dominated field, sometimes you feel as if you are not let in on certain things as a woman."

As a black woman in a white male environment, Dr. Horton confides that "sometimes you just feel like this is overwhelming, and I'd really like to sit down and talk to someone who has been through it." As she anticipates jobhunting, Dr. Horton says she will look for the presence of minorities and women on the faculties she might join.



"There's a lot of satisfaction in helping somebody with a new lease on life," reports Dr. Margaret Bia, a transplant nephrologist. Here she examines a patient who has successfully undergone a kidney transplant. Her 1984 Francis Gilman Blake Award as the "most outstanding teacher in the medical sciences" was followed in 1988 by the department of internal medicine's Housestaff Teaching Award.

Dr. Rico-Hesse is the daughter of a School of Medicine alumnus, an orthopedic surgeon who practices in Mexico. She notes that there are very few Hispanics as well as a lack of women in high-level academic positions. The virologist says she also feels isolated at Yale but nevertheless is happy to be here because of the prestige and resources of the University.

Dr. Rico-Hesse tries not to think about long-range plans at Yale: "I hear that it is very, very hard to get tenure here, but I'm trying not to worry about it." she adds wryly, "I remember hearing a comment when I first came here that Yale is a very good place to have been from, not at."

"Expected To Do It All"

As an American of Japanese descent, Dr. Chambers says she has not encountered discrimination at Yale. But she does have strong opinions regarding the recruitment and retention of women at the School of Medicine.

"I think if they want more women to stay at Yale, they have to end up supporting junior faculty more. The male junior faculty also turn over at a high clip," she submits. Chief among her suggestions are higher salaries for junior faculty members, and improved fringe benefits, including better daycare and more reimbursement for travel and board examinations.

Dr. Chambers adds that the pressure to publish, produce basic research and provide clinical care can be overly demanding. The surgeon also would like to see more recognition for the quality of clinical care that junior faculty provide. "When they review you for advancement, it doesn't matter if you can dance through hoops in the operating room. It doesn't matter if you can operate up a storm, or if you spend hours by patients' bedsides when they're dying," she says. "I'm not the sort to give up the clinical part, so that's where the problems lie—you're expected to do it all."

Many of these junior faculty women's concerns echo those reported by the task force. It concluded that women faculty view the Yale environment as "not favorable for the advancement of their academic careers."

The report also suggests that a lack of female role models as well as "the failure of senior faculty to counsel women" contribute to a belief among women that they have insufficient information regarding appointments and promotions.

In his letter to the faculty endorsing the task force report, Dean Leon E. Rosenberg said he "will continue to advocate increasing the number of senior women faculty until we have reached true parity. I will not tolerate biased or differential treatment of professional women at the School of Medicine."

The dean acknowledged that meeting the task force's goals "will require enormous effort on the part of the entire school." He concluded, "To increase our women faculty at senior rank will require that we retain and promote the highly qualified women currently on our faculty and recruit additional senior women to the school. Without doubt, achieving this difficult goal will be well worth the effort." YM

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Medical School Women Faculty: Yesterday, Today and Tomorrow

Women, albeit in small numbers, have been part of the medical school faculty since shortly after the Yale Corporation voted in 1916 to accept female medical school students. One of its first female graduates, Dr. Helen May Scoville '20, was hired upon graduation, according to a 1986 exhibit focusing on the first women graduates of the school organized by Susan Baserga, M.D., Ph.D., a postdoctoral fellow and lecturer in molecular biophysics and biochemistry.

The year 1961 saw the first woman to be named a full professor, Dr. Dorothy M. Horstmann. Eight years later she also would become the first woman to hold an endowed chair at Yale University when she was named the John Rodman Paul Professor of Epidemiology and Pediatrics. In 1984 Carolyn W. Slayman, Ph.D., professor of human genetics and physiology, became the first woman to assume a medical school department chair when she was appointed to lead human genetics.

In 1975, the Office for Women in Medicine was organized to help advance the careers of women in medicine and the biomedical sciences. In addition to fostering policies and projects that serve these women, the office sponsors a counseling and referral service, a newsletter, a library, support groups and guidance in resolving sexual harassment problems. "I'm proud to say the office also represents a very strong commitment to women on the part of the medical school administration," points out office Director Merle Waxman. "Dr. Rosenberg has certainly carried out his commitment that there should be a separate focus within the medical school."

Another example of that commitment came in October 1988 when the dean and the Board of Permanent Officers endorsed a report recommending that the number of tenured female faculty members be increased to 12 percent by 1993. The eight-member Task Force on Women Faculty, chaired by Dr. James L. Boyer, professor of medicine, recommended a goal of 11 to 16 additional tenured females. Another 12 recommendations outlined a plan for reaching that number.

Besides concluding that women are under-represented on the school's faculty, the report found that the medical school "is currently not a supportive environment for the development of women," and that insufficient information has been provided to women regarding appointments and promotions.

To counteract these conditions and increase the number of tenured women, the task force also recommended that:

- The school advance, promote and retain women of high academic performance.
- The school establish a career counseling program for junior faculty, medical and graduate students.
- The dean act as a strong advocate for increasing the number of senior women faculty.
- Deputy Dean Robert M. Donaldson be responsible for coordinating all medical school activity relating to promoting and recruiting outstanding women faculty.
- The school's Planning and Priorities Committee monitor and advise department chairmen and the dean of the progress in acquiring tenured faculty positions for women. Department chairmen should advise faculty of their

promotion calendars when hired and then advise nontenured women of their progress and prospects at least annually. The chairmen should also consult at least annually with the dean or his designate regarding the status and progress of non-tenured women in their departments.

- Data on the status of women faculty be closely monitored and widely disseminated within the medical school.
- Greater participation in the University's policy of childcare leave be encouraged, including participation in present policies of stopping or slowing the tenure clock.
- A comprehensive childcare program be developed.
- Increased information and assistance concerning employment opportunities for spouses for new Yale faculty be provided.
- The number of women in leadership roles be increased to provide more effective gender role models.
- An increase in tenured slots for women be obtained by reserving positions for targeted areas, when available, and by reallocating resources.

Serving with Dr. Boyer on the task force were C. Elton Cahow, M.D., professor of surgery; Anne McB. Curtis, M.D., professor of diagnostic radiology; Peter A.T. Grannum, M.B.B.S., associate professor of obstetrics and gynecology; Joy Hirsch, Ph.D., associate professor of ophthalmology and visual science; J. Murdoch Ritchie, Ph.D., D.Sc., the Eugene Higgins Professor of Pharmacology; Abigail L. Smith, Ph.D., associate professor of comparative medicine and epidemiology; and Merle Waxman, M.A., director of the Office for Women in Medicine.

Most Progress for Medical School Women Seen at Student, Junior Faculty Levels

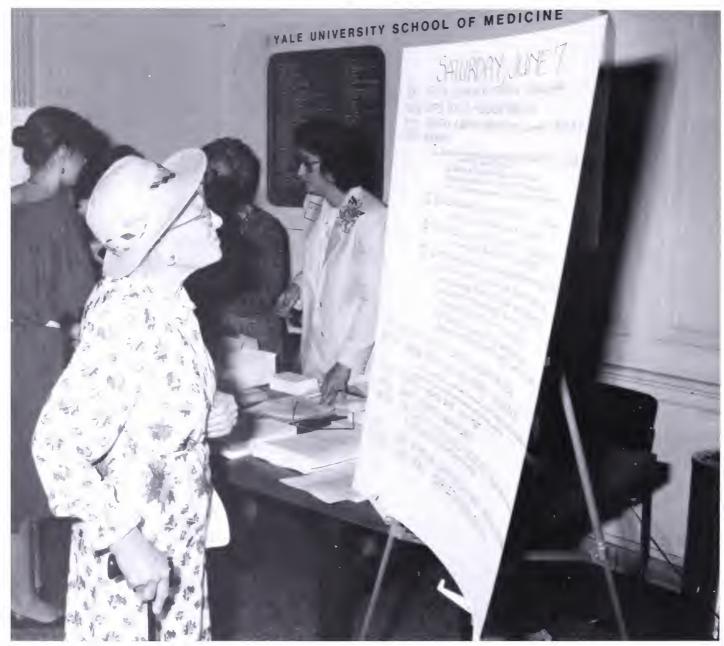
Recent history for women at the School of Medicine has not been all discouraging. The incoming Class of 1992 includes 36 percent women, up from 27 percent in 1977. Among the non-tenured, academic-track faculty, women represent 19 percent of associate professors and 24 percent of assistant professors. And while women are not represented in some surgical sub-specialties at Yale, they are found in most other areas, according to the Office for Women in Medicine.

Nevertheless, while the number of women in the student and junior faculty ranks has increased, the percentage of tenured women has remained unchanged—at 7 percent—since 1984. Moreover, of 26 department or section chairmen at the school, only one is a woman. The scarcity of tenured female M.D.s is particularly striking: In 1987–88, only 3 percent of tenured M.D.s were women as opposed to 18 percent of tenured Ph.D.s.



A two-year NIH grant has allowed Dr. Setsuko Chambers, a gynecologic surgeon, to move temporarily from the operating room into the laboratory. The oncologist is pursuing a possible link between cancer and the sodium potassium ATPase pump in cell membranes. As much as she enjoys her research, Dr. Chambers would like to see more recognition for the high quality of clinical care that the junior faculty provide.

DR. LANGNER LIVES HISTORY



Dr. Languer checks the schedule of events for Alumni Weekend, 1987. (Photographs courtesy of the Office of Alumni Affairs, Yale School of Medicine.)

Editor's note: Dr. Helen Parthenay Langner '22 is one of the School of Medicine's most remarkable alumni/ae. At the time of her graduation, she was the fourth woman to receive a Yale medical degree. Today, at age 96, she stays involved in public health medicine in her home town of Milford, Conn., and is a part-time psychiatric consultant at the Milford Hospital. Her career testifies to the courage and spirit of those who paved the way for today's generation of women in medicine. YALE MEDICINE is proud to present the following interview of Dr. Langner by Leah D'Eugenio, staff assistant at the medical school public information office.

What first interested you in a career in medicine?

I think I was always interested in the human body and physiology. My family had a book called *Story of the House We Live In*, which was the story of your body and how it was put together. And my mother was health-oriented. Whenever we had a cold, my mother never gave us medicine. She put us in a hot pack or gave us hot cloths, or did something. There was always some home remedy for what was wrong with you. We also had chickens. You could have chickens in town then. I used to draw them quite often. So I knew what anatomy was like. It was a great help.

In college I was interested in science, and I hadn't been there very long before I realized that my father couldn't afford to send me to medical school because I had five brothers coming along. So I took courses in education, and taught biology in high school for a couple of years. And then I had a job in a hospital, administration. It was wartime, 1917, or so. I got acquainted with nurses and I thought, well, I'll go in for nursing. But my father talked me out of it. He said, "If you're interested in medicine, why don't you come home and go to Yale?" I was working in New York at the time. I had to go to Hunter College in New York City. There was no college in Connecticut that would take women.

What directed you to psychiatry?

I entered the School of Medicine in 1918. We had a very excellent professor of public health, C.-E.A. Winslow.

In one of his talks, he mentioned Clifford Beers' book, *A Mind That Found Itself*. It interested me. 1 read it in two evenings and neglected my homework and everything else. There was some interest in child guidance clinics. Doctors felt they could prevent delinquency by seeing children early. So I thought I'd like to go into that. But I couldn't afford to take a residency in those days in a general hospital because they didn't pay anything. So, in 1922, 1 began a five-year residency at the New York State Hospital, at that time on Ward's Island. Then I applied for the fellowship in child psychiatry. That fellowship was for a year, spending three months in different clinics that were already established.

At that time, women took promotion exams, but the farthest they could go was what was called senior assistant physician, after you'd been there five years. At the end of five years I'd gone up as far as I could. But then I wasn't interested in staying in the state service anyway. Particularly, I wanted to get into child psychiatry, prevention.

Child psychiatry was still brand new, because what they were doing was trying to establish demonstration clinics. And the man I talked to about going into the field said, "Well, the trouble is that these people always want men for directors of the clinic." And I said, if some community is really anxious to open a clinic, I'd be willing to start it and let them get their men when they can, provided they give me a couple of months' notice. That seemed to go over pretty well, because I did get some work. I spent two three-month periods in Richmond, Va., and then two years in Indianapolis. There weren't too many positions available because it took money to organize these things.

I opened my office in New York City during Pearl Harbor month, December 1941. I arranged to have this office part time. I don't like a lot of administration, so I always try to sublet hours or days with some other doctor who takes care of the rent and the telephone and all that.

What was medical school like?

I was lucky. Yale had rather odd requirements. You were supposed to have a year of psychology, a year of college physics, quantitative chemistry, all things that I happened to take when I was in college. The women who preceded me all had to take off an extra year to complete the requirements.

I think we started with 23 students, and by the time we graduated, there were only about 17 of the original ones left. The class was enlarged because Dartmouth and Bates, in

Maine, had only two years of medicine. And their fellows came down to us in their third year. When I registered, another woman had registered, but she never showed up. So I was the only woman for two years. Then in my third year, another woman enrolled and they organized a pediatric department.

During those first two years when you were the only woman, was it difficult? Did you feel any discrimination?

No. I was very fortunate. There were two boys in my class, the Wakemans, they were twins. Their sister was in the class ahead, and they befriended me. My classmates were very nice to me, always very polite. One day one of the fellas said "damn" quite a few times. I mean, my father was very strict, we weren't allowed to use that language. So after a while, I said, "I wish I had a nickel for every time you said that." He never said it again. Of course, I was four years older, and I was never an academic threat. I think so many women have had trouble because they're so bright. They engender a lot of envy. But there was no reason for them to envy me.

"At that time, women took promotion exams, but the farthest they could go was what was called senior assistant physician. . . At the end of five years, I'd gone up as far as I could."

What were some of your most memorable experiences during medical school?

I think one of the most interesting situations involved Mandel Henderson. He had the task of helping to decide whether the Holland Tunnel, which was being built at that time, should be ventilated. And he had a room of a certain size in the corner of the Howe Street building, and asked us to be guinea pigs. We would breathe that atmosphere a certain percentage, and then do a certain amount of running up and down stairs, and then blow into a paper bag or something. So we were part of that experiment. Whenever I think of the Holland Tunnel I remember being a part of that.

Did you have liospital experience?

To substitute for one month on the surgical service I rode ambulance, and that was really a thrill. It was funny, because you go out and you have an attendant who carries your bag and wears a white jacket. So everybody thinks he's the doctor because they were not used to seeing a woman.

In which areas of medicine do you feel women excel?

I was on staff at New York Infirmary for Women and Children, at one time. I felt women did very well. You had good surgeons. I was particularly impressed with a woman who had gone into the genital-urinary field. That seemed a little unusual. But she was very good, and she had a good practice. I think women are a little readier to make home visits. I know a doctor in New York who still does it, a woman doctor. She was the kind that keeps in touch with all her babies. She sends them birthday cards.

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What were some of the high points of your career?

I suppose the patients that seemed to make good progress, made a good adaptation to life. I liked the work with the Board of Education in New York. That's where I saw children. I think one of the nicest things that's happened to me was the year I retired from my New York office in 1970. I thought I'd like to be able to get into Milford Hospital, conferences and things. What I wanted then, ideally, was to see children the first time they came to the attention of the police. I had met the chief of the medical staff, and he pulled out an application for a position on the staff. I was 76 years old then. I had no idea that anybody would consider me for a staff position. If you were 65, you're supposed to retire.

For a while, I had quite a few consultations. The only consultations I have now are more or less informal. And I am at the health department; I'm still in regular public health.

Just recently, the hospital sent around a form asking if you're fit to continue your duties. I admitted that I have arthritis and could not respond promptly to emergencies. So last November they appointed me consulting attending.

I feel rather honored. I really think my later years have been almost the best in my life. I haven't had too many personal worries or concerns.

Many women in medicine today feel that to have a successful career they need to sacrifice something in their personal lives. Do you think that's true?

I should think so, yes. I think it's an all-absorbing deal. If you care about your practice and your patients, you don't get to socialize much.

But women who combine raising children and a career...

I think they're wonderful. I really do. Because after all, I had five brothers, all younger than I was. So I know what child care is. You don't hear these women complain. And I don't come across any complaints about women in medicine not being able to take care of their children. Maybe there are complaints, but I'm not aware of them.

If you could build your career over again, would you do anything differently?

No, I don't think so. What's gone is gone. I mean, that's part of your life. I think I was very fortunate that I was allowed to go into medicine. It was very unusual.

Do you think there's anything that medical schools can offer to attract more women to medicine?

I think anything that can be done to bring the men and women closer together. It seems to me that what we need is to have men and women get better acquainted, so there isn't that feeling of difference or self-consciousness. I've always been strong for that.

Do you have any advice to share with the women who are entering the field of medicine?

The best advice I can think of is what one woman quoted her father as saying when she went into medicine. It was something like: "Remember that you're a woman." To be yourself. Not try to imitate somebody else, but to work out your own philosophy and your own way of doing things. I think that's what most of us need. Not to be afraid to think things through for ourselves. I think psychiatry is a fine field. And I'm always glad I got into that. YM



At Alumni Weekend 1988, Dr. Languer receives the accolades of her colleagues. At age 96, she is the oldest School of Medicine graduate.

GALLERY

A Man Mid-Wife!

by Isaac Cruikshank, 1793

Isaac Cruikshank's artistic declaration against man-midwifery was based on the widely held belief that men were, at best, detrimental to the childbearing process. Note the striking contrast between the woman's relatively spare domestic setting and that of the man, who is surrounded by implements and potions. This dichotomy reflects the shift from female midwife to male obstetrician that occurred in 18th-century Great Britain. The change coincided with increased use of new medical instruments, especially forceps, which Cruikshank considered unnecessary and hazardous. To many, the idea of a male practitioner examining a woman also had overtones of sexual immorality.

This etching was published by S.W. Fores, who also authored the treatise, Man-Midwifery Dissected, in which it appeared as a front piece. The artist, Isaac Cruikshank (c.1756-c.1811), was the father of the well-known illustrator and satirist George Cruikshank. The elder Cruikshank's demise is reported in the Dictionary of National Biography "accelerated by habits of intemperance."

—Janice Braun Assistant historical librarian Yale Medical Historical Library



CURRICULUM TASK FORCE

Editor's note: The Task Force for Curriculum Evaluation, appointed by Dean Leon E. Rosenberg, has completed its work of studying the School of Medicine curriculum. Here YALE MEDICINE highlights its recommendations. The 14-member task force, chaired by Dr. Edward J. Benz Jr., professor of medicine and human genetics, included department chairmen, members of the curriculum committee, additional key faculty and medical students. School leaders and faculty are now reviewing the report; in subsequent issues of this magazine, we will report on related curriculum matters.

The task force found that the Yale Plan of Medical Education (the Yale System) remains one of the most unusual in the country because it emphasizes minimal time on lectures and formal class activities and maximum time on student free time, self-initiated study and required independent research. The system offers unique opportunities for individuals to fulfill their educational goals and professional development.



"A perception prevails that good teaching will not be appropriately rewarded or recognized when faculty are considered for advancement, promotion or resource allocation."

Many "innovative" curriculum reform projects underway at other schools were reviewed. The task force concluded that these reforms were attempting to achieve the essential advantages already inherent in the Yale system. The proper challenge for Yale is improved expression of the system rather than creation of a new system.

Unfortunately, all students are not uniformly realizing the goals of the Yale system as it is practiced in the 1980s. The problem reflects the need for more aggressive and enlightened integration and management of the curriculum and better academic guidance for each student. Most importantly, outstanding teaching must be stressed more emphatically as a cherished activity of the faculty, and it must be more amply rewarded.

The task force also concluded that the transition between basic science classroom learning and hospital rotations is so abrupt and compressed in the spring semester of the second year that integration of clinical and classroom learning is suboptimal. Introduction of pathophysiologic concepts and teaching of practical bedside skills need to begin earlier in the curriculum and to be interwoven with basic science courses.

Specific task force recommendations consist of four parts:
1. Elevate the status of teaching and medical education within the hierarchy of Medical Center priorities. 2. Enhance the existing system of tutors, advisors and counselors to optimize each student's chances to fully benefit from the curriculum.
3. Change curriculum governance. 4. Set up a subsequent working group to consider general changes in the teaching activities within the existing structure of the curriculum.

1. Status of Teaching and Medical Education

Good teachers at Yale are very popular among students; a reputation for good teaching is valued by departments and the medical school administration. However, a perception prevails that good teaching will not be appropriately rewarded or recognized when faculty are considered for advancement, promotion or resource allocation. Some junior faculty are concerned that time invested in teaching is time not used for "more essential" activities such as research, competition for research grants, clinical service, generation of clinical income or enhancement of one's national reputation by participating in professional societies.

The task force recommended that the medical school take immediate steps to elevate the public status of teaching as a treasured activity within the medical school. The acceptance of outstanding teaching as an accomplishment for which promotion is granted is of paramount importance.

2. Advisors, Tutors and Counselors

The faculty advisory systems developed for students have not been particularly effective, despite many determined and innovative efforts to develop a good system. Relatively few longitudinal activities, such as advisory group meetings, are widely attended or utilized unless they have strong academic content. The task force proposed that the system of clinical correlation tutors and faculty advisors be extensively revised and enhanced. The new system should build upon the academic content of the existing clinical correlations first-year course experience and include provisions for continuing

advisor/student relationships throughout the four years.

The task force suggested that the associate dean for education and student affairs and the Curriculum Committee develop a new advisory system based on the clinical correlations tutoring system. Each student should have both a basic science and a faculty advisor. Each advisor/student unit should be amalgamated with several other advisor/student units to form small groups.

The group recommended that a new upgraded advisory system, closely coupled with the academic curriculum, be put into action. The system should have graded levels of interaction ranging from "one-on-one" advisor/student interactions through small group academic exercise such as those mentioned above.

Proper participation by a faculty member in the advisory system should be credited as a major teaching contribution to the medical school. Faculty contributing in this fashion in lieu of, or in addition to, course or rotation teaching should be suitably rewarded. It is the task force's hope that these individuals will constitute an "elite core" of teacher-advisors, and that recognition of and reward for involvement in this critical phase of student life will become a highly sought distinction.

Several task force members have pointed out that house staff, post-residency fellows and post-doctoral fellows represent a major untapped source of talented teachers. Their involvement in the enhanced advisory system could be a useful conduit by which these individuals can gain teaching experience in a supervised setting while extending the ability of faculty members to interact with student groups.

3. Curriculum Governance

The task force recommended that the basic existing structure of the curriculum be preserved. However, it strongly suggested that some alterations be made in order to accomplish stated goals. To implement these changes, a better system of curriculum governance is needed. The group recommended that meetings be held to develop a specific governance plan to implement the necessary changes.

A new Curriculum Committee is needed. It should have three subcommittees as before: a basic sciences subcommittee, a clinical sciences subcommittee and a thesis/student research committee. However, the new committee should be elevated to the status of a full standing committee of the school, like other major medical school committees. The committee shall have expanded authority and responsibilities. It shall be responsible for oversight, management and integration of the entire curriculum; and for the initiation, review and implementation of major changes arising from actions of the subcommittees.

4. General Changes in the Existing Curriculum

The task force proposed several specific areas for curriculum enhancement:

- Extend the teaching of pathophysiology in the second year over a greater period. Teach history-taking and physical diagnosis during the second semester of the first year, as part of the clinical correlations exercises. Require the teaching of patient neurological and radiologic evaluation in the expanded Introduction to Clinical Medicine Program.
- Plan a new "systems-oriented" pathophysiology course to extend throughout the entire second year, and possibly into the beginning of the third year, so more time is devoted to problem-oriented, systems-based teaching of clinical phenomena.

- Reorganize the fourth year so all students better use their time. Students need to develop concrete plans of electives and research for the fourth year in conjunction with faculty advisors.
- Develop a required series of class exercises including symposia, seminars, case conferences and elective course models from which students are required to select choices during their fourth year to integrate basic science principles and clinical problems and to include major issues of professional practice, health care organization and interactions with patients.
- Establish more distinct guidelines for elective and course requirements in the fourth year. These guidelines must take into account students who wish to travel for beyond-Yale learning opportunities.
- Develop an explicit set of objectives for every clinical rotation, required and elective, that students need to meet. Didactic teaching exercises during major clinical rotations need to be strongly encouraged. House staff should be taught and counseled about their role as teachers of medical students on rotations; clinical programs should emphasize outpatient experiences.
- Investigate enhanced use of electronic and audio-visual techniques for individualized teaching, and develop recommendations concerning their use.
- Enhance the curriculum by a didactic program that extends throughout the entire four years. Possibilities include oneday symposia that expose students to new advances in medical practice, and programs that extend the concepts of the existing physician's responsibilities course.
- Develop strategies to insure that exposure to multidisciplinary areas such as nutrition, preventive medicine and outpatient medicine are adequately provided without expanding the number of courses.
- Recommend that a group within the Curriculum Committee be appointed to establish joint efforts with Yale-New Haven Hospital toward enhancing the medical staff's commitment to teaching.
- Identify, track and counsel students considering a fifth year at the earliest stage to assure that their unique needs are met. (Approximately 20 percent of Yale medical students opt for a fifth year.)
- Develop a system to provide prompt and effective feedback to both students and faculty about how well course and rotation objectives are being met. Students need to be quickly informed about the suitability of their progress, while faculty need to be quickly informed about the degree to which particular exercises succeeded in attempts to meet objectives.

Specific curriculum changes are needed. However, the curriculum task force strongly reiterated that the major enhancement required for teaching Yale medical students is to upgrade the recognition of, and reward for, teaching. The task force expressed the belief that if all of the other curriculum changes were to be successfully accomplished in the absence of a significant upgrading of the status of teaching, its work would have to be regarded as a failure. The importance of a heightened level of consciousness concerning teaching cannot be stressed enough, and the institutional commitment to teaching must both permeate and subsume all of the specific changes that are made. YM

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CLASS OF 1992

Class of 1992 Profile

The Class of 1992, comprised of 64 men and 36 women, was selected from 2,155 applicants representing more than 40 colleges. The class includes four students accepted through the early decision plan, five students enrolled in the M.D., Ph.D. program, two children of Yale University faculty and nine children of alumni, four of whom are children of medical school alumni. Six of the first-year students hold Ph.D. degrees and five have master's degrees. Black Americans and other minority students comprise 20 percent of the Class of 1992. Three of the students are foreign nationals. Students in the Class of 1992 range in age from 19 to 35, with a mean age of 23. Thirteen first-year students are Yale alumni, eleven are Harvard graduates.

Ahmed Mohammed Abou-Zamzam, Sherman Oaks, Calif. B.A. (biochemistry) *Harvard*, 1988

Rachel Alison Adcock, Ooltewah, Tenn. B.A. (psychology) *Emory*, 1987

Darrick James Alaimo, Rochester, N.Y. B.S. (neuroscience) *Brown*, 1988

Karen Joan Antell, Great Neck, N.Y. B.A. (East Asian studies) *Brown*, 1986

Jonathan Louis Barash, Madison, Wis. B.S. (zoology) Wisconsin, Madison, 1987

Stacey Ann Berg, Nanuet, N.Y. B.S. (neurobiology) *Cornell*, 1988

Matthew Hitchcock Bigham, Evansville, Ind. B.S. (chemistry) *Yale*, 1988

Barry David Birch, Huntington Bay, N.Y. B.A. (biology) *Stanford*, *1988*

James Ean Blaugrund, New York, N.Y. B.A. (English) *Amherst*, 1986

Madeleine Cecile Blaurock, Wilmette, Ill. B.A. (chemistry) *Haverford*, 1988

James Chang, Budd Lake, N.J. B.S. (biology) *Stanford*, 1987

Charles Sumner Charman, Lebanon, N.H. B.A. (psychology) *Wesleyan*, 1986

May Cheng-Su Chen, Madison, Wis. B.A. (biology) *Harvard*, 1987

Eileen Chia-Lin Chen, Hacienda Heights, Calif. B.S. (biology) California, *Irvine*, 1987

Howard Ho-Wing Cheng, Los Angeles, Calif. B.S. (microbiology) *Yale*, 1987

Sally Jean Compere, Ypsilanti, Mich. B.A. (astronomy) *Mount Holyoke*, 1978 Ph.D. (biochemistry) *U. of Washington*, 1982

Tracy Anne Contant, Teaneck, N.J. B.A. (biochemistry) *Wesleyan*, 1986

Marlene Corujo, Bronx, N.Y. B.A. (biology) *CUNY-Hunter*, 1988

Douglas Middleton Dahl, Salt Lake City, Utah B.A. (biology) *Princeton*, 1988

Jodi Sue Dashe, Philadelphia, Penn. B.A. (biology) *Pennsylvania*, 1988

Thomas Andrew Davenport, Bronx, N.Y. (biology) *lona*, 1988

Nancy Lynn Dingott, White Plains, N.Y. B.A. (English) *Pennsylvania*, 1988

Sara Elizabeth Dobbs, Winnipeg, Manitoba, Canada B.S. (biopsychology) *Brandeis*, 1988

Laura Michelle Drabkin, South Woodmere, N.Y. B.A. (biology) *Pennsylvania*, 1988

Gregory Alexander Engel, East Windsor, N.J. B.A. (biology) *Cornell*, 1987

Stephen John Ferzoco, Dedham, Mass. B.S. (biology) *Tufts*, *1988*

Evan Scott Fischer, Plainview, N.Y. B.A. (biology) *Washington U.*, 1988

Lawrence Benjamin Gardner, New York, N.Y. B.A. (biochemistry) *Brown*, 1987

Michael Girardi, Island Park, N.Y. B.A. (computer science) *Brown*, 1988 B.S. (biology) *Brown*, 1988

Elizabeth Sarah Gold, Washington, D.C. B.S. (microbiology) *Princeton*, 1988

Shraga Nahum Goldberg, Flushing, N.Y. B.A. (chemistry) *Yeshiva*, 1988

Stephanie Robin Goodman, East Brunswick, N.J. B.A. (chemistry) *Harvard*, 1988

Israel Robert Grossman, Putney, Vt. B.A. (political science) *Chicago*, 1988

Edward Joseph Gunther, Valley Stream, N.Y. (chemistry) *Hofstra*, 1988

Mark Jonathan Halsted, Traverse City, Mich. B.A. (history) *Chicago*, 1988

Nancy Lynn Harthun, Manakin-Sabot, Va. B.A. (psychology) *Yale*, 1987

Charles Chansik Hong, Troy, Mich. B.S. (biology) *M.I.T.*, 1988

John The Baptist Houston, Hitchcock, Texas B.S. (biochemistry) *Texas A & M, 1988*

Dennis Patrick Meehan Hughes, Westport, Conn. B.S. (pre-med) *Notre Dame*, 1988

Robert Bruce Johnson, Malverne, N.Y. B.S. (biology) *Yale*, 1988

Daniel Lee Kaplan, Baltimore, Md. B.A. (interdisciplinary) *Virginia*, 1988

Suresh Karne, Knoxville, Tenn. B.A. (chemistry, biology and psychology) *Teunessee*, 1988

Scott Eric Kasner, Woodmere, N.Y. B.S. (physics) *Duke*, 1988

Yuly Kipervarg, Forest Hills, N.Y. (sociology) *Harvard*, 1988

Eric Lewis Krakauer, Cincinnati, Ohio B.A. (English) *Columbia*, 1980 M.A. (philosophy) *Yale*, 1987 M.Phil. (philosophy) *Yale*, 1987

Lauren Eric Krieger, Rolling Hills, Calif. B.A. (English) *Brandeis*, 1985

Chaiyaporn Kulsakdinun, Crown Point, Ind. B.A. (biology) *Johns Hopkins*, 1988

Joseph Anthony LaRocca, Port Jefferson, N.Y. B.S. (biology) *SUNY*, *Stony Brook*, *1987*

Eileen Carol Ley, San Antonio, Texas B.S. (biology) *Texas*, *San Antonio*, 1979 B.S. (pharmacology) *Texas*, *Austin*, 1983 Pharm. D. (pharmacology) *Texas*, *Austin*, 1986

Theresa Ta-San Lu, Rockaway, N.J. B.S. (biochemistry) *Yale*, 1988

Julie Stetson Lund, South Dartmouth, Mass. B.A. (geology) *Harvard*, 1985

Subu Natesh Magge, Cincinnati, Ohio B.S. (biology) *M.I.T.*, *1988*

J. Mathieu Massicotte, Norton, Mass. B.A. (physics) *Holy Cross*, 1987

Kelly Ann McGarry, Warwick, R.I. B.S. (biology) *Brown*, 1987

Heather Joy McLean-Riggs, Johannesburg, South Africa B.S. (zoology) *Washington State*, 1988

Samuel Skipworth Myers, Boston, Mass. B.A. (history) *Harvard*, 1987

Jennifer Ann O'Brien, Charleston, S.C. B.A. (English) *Harvard*, 1988

Tobenna Chukueke Okezie, Jamaica, N.Y. B.A. (political science) *Princeton*, 1988

Robin Alexandra Perlmutter, New Haven, Conn. B.A. (biology) *Mount Holyoke*, *1985* M.P.H. (epidemiology and public health) *Yale*, *1988*

Victor Lynn Perry, Houston, Texas B.A. (history) *Skidmore*, 1987

Daniel Michael Philbin Jr., Sherborn, Mass. B.A. (engineering) *Yale*, 1988

Matthew Frank Philips, North Dartmouth, Mass. B.A. (biology) *Oberlin*, *1988*

Anthony Michael Powell, Huntington Beach, Calif. B.S. (biochemistry) *California, Irvine, 1988*

M.P.H. Class of 1990 Profile

In the department of epidemiology and public health (EPH), 66 women and 40 men enrolled in the first-year class. Three students enrolled in the M.D., M.P.H. program, and two are seeking a combined master's in nursing and public health.

The Class of 1990, which includes 18 foreign nationals and 25 black and other minority students, comes from 24 states, Puerto Rico, the District of Columbia and 14 foreign countries. Fourteen first-year students are nurses; 25 hold M.D. degrees. The class also includes an attorney, a chiropractor, a podiatrist and a dentist. One student holds a Ph.D. and five hold master's degrees. The remainder earned undergraduate degrees in the sciences and liberal arts.

EPH, in addition to being a department of the medical school, is an accredited school of public health.

Barbara Ann Ramlo, Fargo, N.D. B.A. (anthropology) *Chicago State*, 1988

R. Lawrence Randall, Washington, D.C. B.A. (biology) *Brown*, 1988

Eric Jay Rashba, Wappingers Falls, N.Y. B.A. (economics) *Columbia*, 1987

James Todd Reese, Canfield, Ohio B.A. (biology) *Harvard*, *1988*

Diedre AnnMarie Reynolds, Jamaica, N.Y. B.S. (biology) *Yale*, *1988*

Micky Ray Riggs, Johannesburg, South Africa B.A. (English) *Stephen F. Austin State*, 1976 M.A. (English) *Stephen F. Austin State*, 1978 Ph.D. (linguistics) *Southern California*, 1981

Nabil Pierre Rizk, Manlius, N.Y. B.S. (biochemistry) *Cornell*, 1988

Sean Peter Roddy, Little Silver, N.J. (biology) *Georgetown*, 1988

Harriet Walker Roeder, Honolulu, Hawaii B.A. (English) *Williams*, 1984

Kenneth Eric Rosenzweig, Brooklyn, N.Y. B.S. (biology) *Brown*, 1988

Mustafa Sahin, Istanbul, Turkey B.S. (biochemistry) *Brown*, 1988

Mitchell Todd Saltzberg, Glendale, Wis. B.S. (zoology) *Wiscousin*, 1988

Nathan John Schmiechen, Lancaster, Penn. (chemistry) *Grinnell*, 1988

John Thomas Schulz III, Portland, Texas B.S. (biochemistry) *Texas A & M*, *1980* Ph.D. (biochemistry) *Harvard*, *1987*

Jonathan Eliot Sears, Guilford, Conn. B.S. (chemistry) *Yale*, *1988*

William David Sharpe, East Haven, Conn. B.S. (chemistry) *Cal. Tech.*, 1985

Claudia Robyn Showalter, Harrisonburg, Va. B.A. (English) *Princeton*, 1988

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The Medical Institution at Yale: 1837-38

Editor's note: The following is from the Catalogue of the Officers and Students in Yale College, 1837-38.

The Instructors in the Medical Institution, are a Professor of Surgery, a Professor of Chemistry and Pharmacy, a Professor of the Theory and Practice of Physic, a Professor of Materia Medica and Therapeutics, a Professor of Anatomy and Physiology, and a Professor of Obstetrics.

The annual course of Lectures, commences at the expiration of eleven weeks from the third Wednesday of August, which will usually be the first Thursday of November, and continues seventeen weeks. There are, at least, five daily lectures throughout the term, and a part of the time, six.

The fees, which are required in advance, are \$12.50 for each course, except that on Obstetrics, which is \$6. The Matriculation fee is \$5, and there is a contingent bill of \$2.50. Those who have attended two courses of Lectures in this Institution, are entitled to admission to future courses, on the payment of the Matriculation fee and the contingent bill.

The ordinary price of board, room, &c. in New Haven, is from \$2 to \$3 per week, according to the accommodations required.

The Students are entitled to gratuitous admission to the Medical and Academical Libraries, to the Anatomical Museum, and to the Cabinet of Minerals; and also to the Lectures on Natural Philosophy, on paying the fee of the course.

The Medical College building has lately been enlarged, and that part of it especially devoted to Anatomical pursuits, rendered more commodious. Every facility will be afforded to those students who wish to attend to practical Anatomy.

Steven Richard Simon, Long Beach, Calif. B.S. (chemistry) *Stanford*, 1988

Daniel Hal Solomon, Roslyn Heights, N.Y. B.A. (biology) *Yale*, 1986

Ivan Jose Suner, Guaynabo, Puerto Rico B.A. (biology) *Harvard*, 1988

Sara Lynn Swenson, Ocate, N.M. B.S. (biology) *Princeton*, 1986

Tad William Taylor, Billings, Mont. B.S. (chemical engineering) *Montana State*, 1977 Ph.D. (chemical engineering) *Wisconsin*, 1983

Neely Anne Towe, Greenwich, Conn. B.A. (economics) *North Carolina*, *Chapel Hill*, 1987

Santiago Julio Villazon Jr., Miami, Fla. B.S. (biology) *Yale*, 1988

Margaret Ann Wallen-Friedman, Sacramento, Calif. B.A. (English) *California*, *Berkeley*, 1983 B.S. (genetics) *California*, *Berkeley*, 1983 Ph.D. (neuroscience) *Wisconsin*, 1988

John Leclerc Walsh, Wichita, Kan. B.S. (engineering) *M.I.T.*, 1982 M.S. (engineering) *Wichita State*, 1988

Ping Yeu Wang, Plano, Texas B.S. (biochemistry) Wisconsin, 1988

Ying Wang, Brooklyn, N.Y. B.S. (computer science) *Drexel*, 1985

B.A. (chemistry) *Princeton, 1982* **Edward Malcom Weaver**, Portland, Ore.
B.A. (chemistry) *Oregon, 1988*

Paula Ivonne Watnick, Pasadena, Calif.

Lauren Debra Weinstein, Oradell, N.J. B.S. (biology) *Stanford*, *1988*

Edward Paul Weiss, Roslyn Heights, N.Y. B.A. (chemistry) *Williams*, 1988

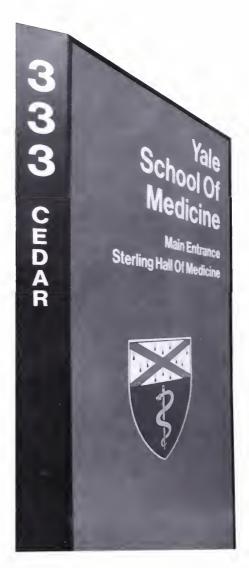
Frederick Gordon Patton Welt, Rye, N.Y. B.S. (geology) *Duke*, 1985 M.S. (chemistry) *Pennsylvania State*, 1988

Linda Kay Wilmarth, Mason City, Iowa B.A. (biology) *Stanford*, 1988

Anne Armour Wolf, Washington, D.C. B.S. (biology) *Yale*, *1987*

Teresa Lorraine Wooten, Nashville, N.C. B.S. (French) *Duke*, 1988

Ross Ian Seth Zbar, Montclair, N.J. B.A. (biology) *Harvard*, 1988



SCOPE

Lithotripter Makes Waves Among Gallstone Patients

Dr. Robert I. White, chairman of diagnostic radiology, has announced that his department is offering biliary lithotripsy for patients with gallstones. Performed in conjunction with Yale-New Haven Hospital, the procedure—which uses high pressure shock waves to disintegrate the stones—is undertaken in a mobile van shared with Montefiore Hospital in Pittsburgh.

Fourteen sites nationwide have been chosen for the clinical trial which will test lithotripsy as an alternative to surgery for gallstone removal.

Successful European trials have indicated that gallstone lithotripsy, as opposed to surgery, reduces pain, costs

less and requires a two-day hospital stay instead of six days. Also, recovery time can be cut from six weeks to one or two days.

NCI's \$5 Million Funds Cell Biology Research

A team of biomedical scientists from the department of cell biology will embark on a new direction in basic cancer research, thanks to a \$5 million grant from the National Cancer Institute to the University.

Marilyn G. Farquhar, Ph.D., Sterling Professor of Cell Biology and Pathology, will head a team of leading researchers who will analyze how molecules on the surface, or membrane, of cells regulate the movement of proteins. By comparing their studies into normal and malignant cells, the researchers hope to help develop more effective treatments for cancer.

Professor Farquhar explains that many cancer-causing genes—known as oncogenes—have been found to be altered forms of normal genes. The study of protein and membrane traffic has become increasingly relevant to cancer research because some oncogenes have been discovered to control membrane and protein movement, and signalling between cells across their membranes.

Professor Farquhar will collaborate with seven colleagues to employ recombinant DNA technology (gene splicing), monoclonal antibodies, immunocytochemistry, and the use of video and electron microscopes in a high-technology quest to uncover cancer's secrets.

Her team includes: George E. Palade, M.D., Sterling Professor



Viewing an ultrasound image on a television monitor, Dr. Lee H. Greenwood, assistant professor of diagnostic radiology, uses a light pen to focus shock waves on gallstones. (Photograph courtesy of Yale-New Haven Hospital.)

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Emeritus of Cell Biology; Ari H. Helenius, Ph.D., professor of biology and cell biology; James D. Jamieson, M.D., Ph.D., professor and chairman of cell biology; John K. Rose, Ph.D., professor of pathology and cell biology, Ira S. Mellman, Ph.D., associate professor of cell biology; Susan S. Ferro-Novick, Ph.D., and Peter J. Novick, Ph.D., assistant professors of cell biology.

Multimedia Computers Help Teach Cardiology

Echocardiologist Carl Jaffe and medical illustrator Patrick Lynch have teamed up with a visiting Fulbright scholar to make "hypermedia" a new tool in cardiac imaging education.

Dr. Jaffe, associate professor of diagnostic radiology, worked with Mr. Lynch and Arnold Smeulders, Ph.D., of Erasmus University in Rotterdam to develop computer software that combines moving ultrasound images and animated drawings of the heart with still illustrations and electronically produced heart sounds. Dr. Jaffe uses these images and sounds to complement written material about how to read echocardiograms, ultrasound images of the heart.

"Hypermedia programs combine sound, motion and color—something you can't do with textbooks," he explains. The program culminates a year's work for Dr. Jaffe, who supplied the medical information, and Mr. Lynch, who designed the software and award-winning graphics.

To learn how to read echocardiograms, the student sits in front of two computer screens, one connected to a videodisc machine, the other to a microcomputer that controls the hypermedia program. As the student reads the educational text from the microcomputer screen and views its

accompanying illustrations, the videodisc screen shows a moving picture of the actual echocardiogram that the text is explaining.

Using a hand-held "mouse," the hypermedia user can freeze the videodisc image, or call up an animated drawing on the microcomputer that emphasizes what the user should notice about the echocardiogram. At the touch of a button, users can even make the microcomputer reproduce what the heart on the videodisc screen sounds like through a stethoscope.

More than 160 clinical cases went into the team's hypermedia curriculum, which allows users to progress at their own pace in learning about the full range of cardiac problems.

The volume of information that goes into a hypermedia program is daunting: The videodisc alone contains enough information to fill more than 34,000 book pages.



"Hypermedia programs combine sound, motion and color—something you can't do with textbooks," explains Dr. Carl Jaffe (right). In this photo, he and medical illustrator Patrick Lynch discuss ways to modify their educational computer program. (Photograph by Bill Carter.)

Yale Geneticists Win \$1.1 Million in Grants

Grants totaling more than \$1.1 million have been awarded to geneticists at Yale by the National Institute of General Medical Sciences (NIGMS) for research to systematically locate genes on human or mouse chromosomes and determine how they interact to control growth and development.

Frank H. Ruddle, Ph.D., Sterling Professor of Biology and Human Genetics, has been awarded \$879,164 to direct five projects on "High Resolution Genetic Analysis of Complex Genomes," including a core project for a DNA Services Laboratory. A genome encompasses the entire genetic structure of an animal or organism and is made up of deoxyribonucleic acid, or DNA.

In the School of Medicine, Neil J. Risch, Ph.D., associate professor of public health (biostatistics) and human genetics, has been awarded \$228,313 to study "Statistical Methods and Applications in Human Genetics." He plans to use mathematical methods to analyze data concerning complex genetic diseases such as breast cancer, a rare neurological disease called dystonia, inherited immune responses, psychiatric disorders and epilepsy.

New Diagnostic Tool Helps Detect Viruses

A trio of cell biologists at the School of Medicine has developed a new, sensitive diagnostic tool that may be used to detect an important class of viruses that causes AIDS, influenza, encephalitis, herpes and other diseases.

Their approach involves producing a class of antibody molecules, known as anti-idiotypes, by using chemically synthesized viral components. These antibodies act as powerful diagnostic agents, are simple to use, and—in contrast to conventional antibodies—are produced without using live animals.

The antibodies have already provided scientists with important new information about how virus particles are assembled inside and released from infected cells. In addition, the scientists have established an efficient new strategy for identifying interactions

between the molecules of cells and viruses, cells and other cells, or between proteins and cells.

The researchers—Ira Mellman, Ph.D., associate professor of cell biology; Ari Helenius, Ph.D., professor of cell biology; and David J.T. Vaux, M.D.-Ph.D., formerly a visiting research scientist at Yale—say their method of "biological sculpting" offers more than traditional biochemical, immunological and molecular biological approaches to detect viruses.

"Antibodies are, in a sense, like molecular plaster casts of the proteins they recognize," Professor Mellman explains. "If someone hands you a mold, you can easily find out the shape it contains by filling it with plaster, removing it from the mold, and just looking at it. In much the same way, we can now make an antibody to an important structural protein of a virus and use it to 'cast' a second antibody that identifies a second virus protein which represents the mirror-image of the first. It turns out that these mirrorimage pairs define highly conserved interactions within a virus which must interact with each other during the normal virus life cycle.'

The National Institutes of Health funded the research which the Yale team reported in the November *Nature*.

Med, EPH Students Elect To Volunteer in City

In the fall, the medical school's office of government and community affairs invited students to serve with healthrelated nonprofit groups in New Haven. Scores of students have responded.

Dan Fitzgerald, a second-year medical student who co-organized the first annual open house for volunteers, reports that many of the 150 students who attended have chosen to give at least two hours a week to one of 15 organizations. Mr. Fitzgerald organized the open house with Beth Tutunjian, a second-year student in epidemiology and public health (EPH).

Mr. Fitzgerald himself volunteers with 10 medical, nursing and EPH students in the downtown evening soup kitchen, a Hill Health Center program that uses the facilities of downtown churches to provide hot meals and health care to the homeless.

Other student volunteers help organizations that work with the elderly, children or women. Some also assist at mental health or community health care centers.

What moved Mr. Fitzgerald to get involved? He replies: "During the first



Third-year students Gonzalo Paz-Soldan (standing) and Jorge Arroyo keep company with Migdalia Serrano, grandmother of a Yale-New Haven Hospital pediatric patient. The students began a program in which volunteers act as interpreters for Spanish-speaking patients. (Photograph courtesy of Yale-New Haven Hospital.)

two years in medical school, you're always in class and you tend to lose touch with why you're getting into medicine. Working for two hours a week with the homeless or the elderly reminds me what I'm working toward. It gives me energy to keep studying."

Minority Affairs Office Planned

A new Office for Minority Affairs at the School of Medicine will assist in recruiting—and will offer academic and social support for—minority students. In addition, the office will stimulate and coordinate involvement of Yale medical students in activities of the broader New Haven community, particularly in high schools.

"We hope that this new program will address several goals," Dr. Leon E. Rosenberg said. Specifically, the director of the new office will help recruit disadvantaged minorities to the student body and the faculty; develop support systems for minority students and faculty; increase the school's awareness of and sensitivity to minority needs in medical education and practice; and implement outreach programs to assist the city of New Haven meet its educational and health care goals for minorities in need.

In establishing the minority affairs office, Dean Rosenberg emphasized that it is part of a comprehensive School of Medicine plan that includes contributing to the health of the medically underserved poor. Other parts of the plan include the following:

- Subscribe to a code of personal conduct that endorses decency and civility for minority students, faculty, staff and patients, and decries racism and insensitivity in all forms.
- Through affirmative action, increase the number of minority students and faculty in the School of Medicine.
- Open the school's doors to more minority high school students by expanding the summer science fellowship program.
- Avail New Haven public schools and clinics of the talents of Yale medical and public health students and faculty by volunteering their services as auxiliary educators and surrogate parents.

To recruit the new office's first director, Dr. Rosenberg has appointed a seven-member committee and also has invited suggestions from members of the medical school community.

Committee members include: Robert H. Gifford, M.D., associate dean for education and student affairs, chairman; James P. Comer, M.D., M.P.H., the Maurice Falk Professor in the Child Study Center and psychiatry; Myron Genel, M.D., associate dean for



Dr. H.F. Gamble, Class of 1878, the third black to graduate from the School of Medicine. The physician is one of several featured in a medical student exhibition at the Cushing Rotunda.

government and community affairs; Joy Hirsch, Ph.D., associate professor of ophthalmology and visual science; Curtis L. Patton, Ph.D., professor of epidemiology (microbiology); Asghar Rastagar, M.D., professor of medicine; Merle Waxman, M.A., director, Office for Women in Medicine; and Ellis L. Webster, a second-year medical student.

Medical Students Trace Care for Nation's Poor

Four School of Medicine students have mounted a library exhibition that illustrates changes in medicine and health care for the underprivileged in America during the past 150 years.

The exhibition, which opened on Jan. 16, the federal observance of Martin Luther King Jr.'s birthday, continues through September. Books, old photographs, articles and a 19th-century Yale medical exam book are displayed in the Medical Library's Cushing Rotunda.

"We want to foster an awareness about health care and minorities," says Daryl Daniels, a second-year medical student. "There's a growing interest in this subject." Mr. Daniels has started research for his senior thesis on the 154 blacks who have graduated from the School of Medicine, beginning with the first black graduate, Dr. Bayard T. Smith, Class of 1875, who practiced family medicine in Delaware.

Collaborating with Mr. Daniels on the exhibition are Ann Arthur, a fourthyear student, and second-year students Colleen Foy and Ellis Webster.

The exhibition features:

- Navaho Indians who were trained to manage and operate their own health care facility;
- The National Negro Health Movement that Dr. Booker T. Washington founded in 1917;
- Outstanding black physicians;
- A modern health care clinic for migrant workers in the West;
- · Infant mortality.

Medical Center Begins Recycling

Old-fashioned pads return to hospital beds, new bins appear for used paper in the medical school mail room: signs of the times and—medical center officials hope—of new attitudes about trash.

Notes Allan E. Braun Jr., Yale's director of facilities management: "The pressure is on everybody in New Haven to do something about the enormous amount of garbage that we produce."

Yale-New Haven Hospital has reverted to using china plates for patient meals to reduce paper and plastic waste. Moreover, the hospital will cut by nearly 90 percent the number of bed pads it throws away. Washable cotton pads have made a comeback in most patient areas, replacing disposable pads that were being thrown away at a rate of a million per year.



Second-year student Ellis Webster co-chairs one of 15 luncheon seminars held throughout the medical school in observance of Martin Luther King Day. The theme of day: "Race, Poverty and Disease." An article by keynote speaker Marian Wright Edelman, founder of the Children's Defense Fund, will be featured in the Summer 1989 edition of YALE MEDICINE. (Photograph by Bill Carter.)

At the medical school and throughout the University, autumn leaves are being composted for fertilizer at the Yale Golf Course and corrugated cardboard is being recycled. In addition, Yale undergraduate volunteers are collecting office and computer paper, as well as newspaper for recycling.

Also, the University has begun to send half of the 6,000 tons of trash it generates annually to Bridgeport for waste-to-energy incineration rather than continue to rely solely on the New Haven city dump, which is scheduled to close next year.

Clinical Trial Underway On Fetal Tissue Implant

Physicians, surgeons and scientists have developed a promising new clinical research procedure which uses fetal brain cells to replace the dopamine-producing brain cells deficient in people with Parkinson's disease. So far, two patients have participated in the clinical research trial.

Dr. Dennis D. Spencer, the Nixdorff-German Professor of Neurosurgery at the School of Medicine and head of the section of neurosurgery at the medical school and Yale-New Haven Hospital, leads the surgical team which performs the procedure at the hospital.

The surgical team implants fetal neural cells which have been donated, frozen for two months in liquid nitrogen and then tested for safety, compatibility and viability. The team then thaws the tissue and implants it in those who have volunteered to participate in this clinical study, supported by private funds.

"There will be no indication of functional recovery for several months," Dr. Spencer explains, and therefore no information about the success of the procedure will be available for some time.

The clinical research procedure is based on fundamental scientific work and laboratory animal studies conducted for many years by the School of Medicine biomedical scientists, in conjunction with colleagues at the University of Rochester. Dr. D. Eugene Redmond Jr., professor of psychiatry at Yale, is the project leader.

Dean Leon E. Rosenberg comments:

"Yale's research protocol, aimed at determining the efficacy of fetal brain implantation in patients with severe Parkinson's disease, has great potential to relieve human suffering. We believe that this effort illustrates clearly the essential linkage between basic scientific research and clinical application."

Yale Schizophrenia Research Expands

Nearly three million Americans will develop schizophrenia during their lifetime. About 100,000 schizophrenic patients are treated in public mental hospitals on any given day.

A National Institute of Mental Health (NIMH) grant has funded a new program at the School of Medicine that will allow Yale scientists to conduct basic research into the causes and organic basis of this disabling mental illness.

The five-year, \$6.6 million new center grant awarded to the University from the NIMH will enable Patricia S. Goldman-Rakic, Ph.D., professor of neuroanatomy, and seven Yale medical school colleagues to begin the first program in the United States to focus the latest high technology on the basic neuroscientific study of schizophrenia.

Center scientists will pursue the hypothesis that the disease represents a breakdown of a class of cortical cells and circuits. Researchers will study genetic and other aspects of these cells at the cellular and molecular levels. A major area of study will be the neurotransmitter dopamine and its influence on cognitive function.

"The Center for Neuroscience Research underscores the modern conception of schizophrenia as having an organic basis that affects the highest center of the brain, the cerebral cortex, where the functions of perception, memory and thinking are carried out," Professor Goldman-Rakic explains.

She, her Yale colleagues and scientists at Harvard and the Pasteur Institute and Hospital Saltpetriere in Paris will conduct parallel studies in both animals and schizophrenic subjects, including postmortem analyses of schizophrenic neural tissue.

Besides Professor Goldman-Rakic, Yale faculty members involved with the neuroscience center include: Amy Arnsten, Ph.D., assistant professor of

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neuroanatomy; Charles J. Bruce, Ph.D., assistant professor of neuroanatomy; Dr. Benjamin S. Bunney, professor and chairman of psychiatry; Dr. Scaba Leranth, research scientist in obstetrics and gynecology and neuroanatomy; Pasko Rakic, M.D., Sc.D., the Dorys McConnell Duberg Professor of Neuroscience; and Robert H. Roth Jr., Ph.D., professor of psychiatry and pharmacology.

YSM Ophthalmologists Join Glaucoma Study

School of Medicine ophthalmologists have joined colleagues elsewhere in a major research program to improve the understanding of advanced glaucoma.

The Yale Eye Center is one of 11 organizations selected to conduct the research sponsored by the National Eye Institute. Yale is the only such center in the Northeast chosen to participate in this five-year study, called Advanced Glaucoma Intervention Study.

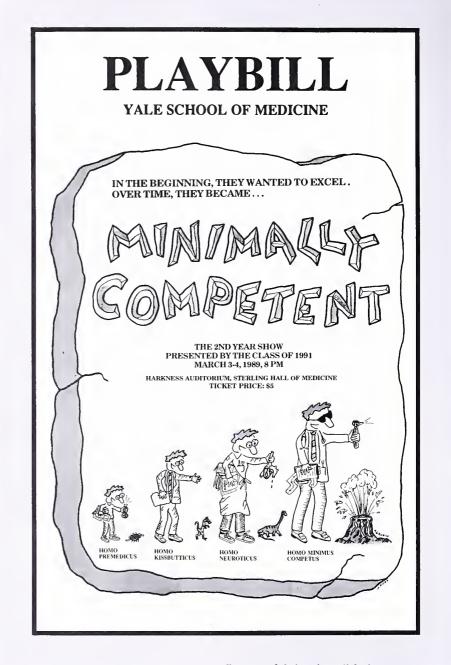
Several medicines are available to control the fluid pressure associated with glaucoma—a disease that affects more than two million Americans. With advanced glaucoma, however, drug treatments have failed to adequately control the pressure, and patients continue to lose vision. Their next option for treatment is surgery, either the conventional or laser type, says Dr. Joseph Caprioli, associate professor of ophthalmology and visual science, who directs the study at Yale.

He adds: "We hope to decide which treatment—laser surgery or conventional surgery—in the long run will be better for patients with advanced glaucoma."

Researchers Pursue Chemistry of Memory

Researchers have observed a chemical process that may reveal how memories are created and stored, according to Thomas H. Brown, Ph.D., a Yale neuroscientist who is at the forefront of studying the interaction in live mammalian brain cells.

Called Long-Term Potentiation, or LTP, the process strengthens the chemical link between two brain cells. That modification can last for minutes,



Second-year students put on first tasteful show! April fools.

weeks or even years and becomes stronger each time the cells are stimulated. LTP could explain how a child develops the concept of "apple" from such associations as shape, color, taste, texture and odor.

Explains Dr. Brown, a professor of psychology, "We are beginning to understand the molecular mechanisms by which the brain modifies its own synaptic connections. A better understanding of how the brain changes these connections during learning could lead to the development of computers that can reason and learn."

Shalat To Study Radon Pollution

A five-year research project to clarify the link between the radioactive gas radon and cancer has been launched by a team at the School of Medicine.

Stuart L. Shalat, Sc.D., assistant professor of medicine and epidemiology, heads the study for which the National Institute of Environmental Health Sciences

awarded \$3.9 million to the University. The Yale project is one of only two in the country, with the other at the University of Utah.

"Although radon is well-established as a cause of lung cancer, it is not yet clear what the nature of the increase in risk is at the lowest levels found in homes," Dr. Shalat says.

Faculty members in the departments of epidemiology and public health and internal medicine are collaborating on the study, in conjunction with the Connecticut State Tumor Registry and the Yale Comprehensive Cancer Center.

Dr. Shalat's team includes: Jan A.J. Stolwijk, Ph.D., Susan Dwight Bliss Professor and chairman of epidemiology and public health. An expert on "sick building syndrome," he is co-principal investigator of the study.

Theodore R. Holford, Ph.D., associate profesor of public health (biostatistics), will analyze the data; Brian P. Leaderer, Ph.D., associate professor of epidemiology (environmental health) and an associate fellow at the John B. Pierce Foundation Laboratory, will supervise radon monitoring and contribute expertise on passive smoking; and Dr. Jack van Hoff, assistant professor of pediatrics, will review medical records of childhood cancer cases.

Study Targets Sun's Ultraviolet Radiation

Biomedical scientists and physicians at the School of Medicine have begun a project to study interactions between sunlight and the pigment-forming system in human skin.

The interdisciplinary team, led by John M. Pawelek, Ph.D., senior research scientist in dermatology, hopes to gain a better understanding of how human skin increases its content of the pigment melanin when exposed to ultraviolet radiation. Melanin absorbs ultraviolet rays and protects the skin.

"Excessive exposure to ultraviolet radiation may cause premature skin aging and skin cancers, including melanoma," Dr. Pawelek notes.

According to The Skin Cancer Foundation, the incidence of skin cancer is increasing. In 1930, the risk of developing malignant melanomas was 1 in 1,500. The current lifetime individual risk is 1 in 135. If the trend continues, that figure will increase to 1



The changing face of the School of Medicine: Looking south from the Center for Molecular Medicine site, one views the Yale Psychiatric Institute, under construction at the corner of College Street and Congress Avenue. (Photograph by Betsy Angeletti.)

in 90 by the year 2000. Some scientists believe that the increase may, in part, relate to a depletion in the Earth's ozone layer.

"It is no accident that exposure to sunlight causes an increase in the pigment content of our skin," explains Dr. Pawelek. "There is a highly detailed program involving the precise interaction of hundreds of different molecules. By studying these processes, we may eventually understand how the program breaks down and melanoma develops."

To conduct this research, the U.S. Environmental Protection Agency (EPA) and Jamcor Pharmaceuticals, Inc., a New York-based company, have awarded the University grants totaling \$2.9 million during the next five years.

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FACULTY NEWS

Pravin N. Bhatt, Dr.P.H., senior research virologist in comparative medicine, received the Charles A. Griffin Award, given for accomplishments in improving the care, quality and environment of animals used in biomedical research. Dr. Bhatt's research includes the isolation and characterization of the sialodacryodenitis virus and contributions to the understanding of guinea pig herpesviruses, lymphocytic choriomeningitis virus, the ectromelia virus and parvaviruses in rats, and viral-induced lymphomas of hamsters. Dr. Bhatt founded the American Committee on Laboratory Animal Diseases.

Dr. Philip K. Bondy, professor emeritus of medicine, will retire in June. Dr. Bondy began his career in 1952 as assistant professor of medicine at Yale. In 1965, while serving as chairman of internal medicine, he was designated Ensign Professor and five years later became the C.N.H. Long Professor. After serving as cancer research campaign professor of medicine at the Institute of Cancer Research in London he returned to the United States. He became chief of staff for research at the West Haven VA Medical Center and associate dean for veterans affairs at Yale University. On May 5, a symposium will be held in Dr. Bondy's honor. For information about the symposium write Suzanne Lande, Yale Journal of Biology and Medicine, Sterling Hall of Medicine, P.O. Box 3333, New Haven, CT 06510.

Dr. Michael B. Bracken, professor of epidemiology, obstetrics and gynecology and director of the Yale Perinatal Epidemiology Unit, has been awarded a residency at the Rockefeller Foundation Bellagio Study Center in Italy. Dr. Bracken will review data from controlled clinical trials of treatments for sick newborns. The results will be part of a book, *Effective Care of the Newborn Infant*, that he is co-editing.

Dr. Michael J. Caplan, assistant professor of cellular and molecular physiology, has been awarded one of 20 David and Lucile Packard Foundation Fellowships in Science and

Engineering. The fellowships, which provide \$100,000 over five years, support basic scientific research at American universities.

Dr. Caplan, who received his M.D.-Ph.D. degree in 1987 from Yale, plans to use this fellowship to examine how newly synthesized membrane proteins are targeted to their appropriate destinations in epithelial cells.

Dr. Mark R. Cullen '61, associate professor of medicine and epidemiology, and the Yale Occupational Medicine Program have been recognized for their contributions to occupational health and safety by the State of Connecticut Worker's Compensation Commission, division of worker education. The staff was instrumental in identifying the dangers of chemical usage in the workplace, notably at the Uretek Co. in New Haven in February 1987.



In late November, Dr. John E. Fenn '61, chief of staff at Yale-New Haven Hospital and clinical professor of surgery at the School of Medicine, visited Centro Medico de los Andes, Bogota, Colombia, where he holds an appointment as senior consultant in the department in surgery. Dr. Fenn was invited to meet the general director, Dr. Roberto Esguerra Gutierrez, to review quality of care and medical staff organization. At the Yale Club in Colombia, Dr. Fenn spoke to more than 20 Yale graduates and their spouses about activities underway at Yale University and the medical center.

Dr. Gary E. Friedlaender HS '71-'74, chairman and chief of the department of orthopaedics and rehabilitation at the School of Medicine and Yale-New Haven Hospital, has been named chairman of the committee on tissue allografts for the American Academy of Orthopaedic Surgeons. Dr. Friedlaender is past president of the American Association of Tissue Banks,

founding president of the American Council of Transplantation and a member of the Orthopaedic Research Society and Musculoskeletal Study Section of the National Institutes of Health.

Dr. Walter J. Hierholzer Jr.'61,director of YNHH Epidemiology and Infection Control and professor of medicine and epidemiology, has been appointed chairman of the American Hospital Association's technical panel on infections within hospitals.

Dr. John C. Hobbins, professor of obstetrics and gynecology and diagnostic radiology, recently received the Joseph H. Holmes Pioneer Award from the American Institute of Ultrasound in Medicine. The award is presented annually to institute members who have contributed to the growth and development of diagnostic ultrasound.

Robert O. Jacoby, D.V.M., Ph.D., chairman and professor of comparative medicine, and Pravin N. Bhatt, Dr.P.H., senior research virologist in comparative medicine, received the 1988 Research Award given by the American Association for Laboratory Animal Science (AALAS).

Drs. Bhatt and Jacoby accepted the award at the AALAS annual meeting Oct. 9-13 for a series of articles on the pathogenesis and epizootiology of mousepox in inbred mice. The articles appeared in Vol. 37, No. 1 of *Laboratory Animal Science*.

Dr. Robert J. Levine HS '62-'63, professor of medicine and lecturer in pharmacology, has been elected to three posts: first, to the Society for Bioethics Consultation Board of Directors. Second, he was named president-elect of the American Society for Law and Medicine. And finally, Dr. Levine became chair of the Connecticut Humanities Council, a state-based affiliate of the National Endowment for the Humanities.

Dr. Morton F. Reiser, the Albert Kent Professor of Psychiatry, was awarded the 1988 Van Gieson Medal from the department of psychiatry at the Columbia University College of Physicians and Surgeons for his distinguished contributions in psychiatry. He spoke at grand rounds on the topic: "What is the Mind Doing While the Brain Sleeps?"

Dr. Charles E. Riordan, associate clinical professor of psychiatry, was appointed vice president of medical services at the Hospital of St. Raphael in New Haven in January 1989. He will manage the hospital's clinical divisions and quality assurance activities. Dr. Riordan joined St. Raphael's in 1987 as chairman of the psychiatry department.

Carolyn W. Slayman, Ph.D., professor and chairman of human genetics, has been selected by University President Benno C. Schmidt Jr. to serve on the Committee on Freedom of Expression at Yale, chaired by Robert K. Adair, Ph.D., Sterling Professor of Physics. The committee will examine the University's free expression policies as they pertain to symbolic expression and the protection of individual privacy. Professor Slayman also has been named one of 21 recipients of the Wellcome Visiting Professorships in the Basic Medical Sciences for 1988-89. She will give several seminars at Wayne State University in Detroit, Mich.

Joan A. Steitz, Ph.D., professor of molecular biophysics and biochemistry, has been awarded Carnegie Mellon University's 1988 Dickson Prize for Science. She is the 15th recipient of the prize that honors individuals who have made outstanding contributions to science in America. Professor Steitz has discovered cell components important to deciphering the molecular biology and development of autoimmune diseases, such as lupus and rheumatoid arthritis.

The National Board of Medical Examiners appointed William B. Stewart, Ph.D., associate professor of surgery and chief of the section of gross anatomy, as a member of the National Board's Part I Anatomy Test Committee. He will aid in the design and development of National Board examinations.

Dr. Kenneth Taylor, professor of diagnostic radiology and chief of the section of ultrasound, will oversee a \$554,000 National Cancer Institute grant to continue study on the detection of tumor vascularity using Doppler ultrasound. The Doppler ultrasound technique detects abnormal blood flow to predict malignancy in tumors of the breast, pancreas, kidney, adrenal gland and liver.

FACULTY NEWS



Dr. Albert J. Solnit

Endowed Chair Honors Dr. Albert J. Solnit

A \$1 million gift from Mr. and Mrs. Saul Z. Cohen of Larchmont, N.Y., to the School of Medicine will establish a professorship in honor of Dr. Albert J. Solnit, Sterling Professor of Pediatrics and Psychiatry at the Child Study Center. The endowed professorship will be designated for a senior faculty member in the Child Study Center.

From 1966 to 1983, Dr. Solnit directed the center, one of the leading facilities of its kind in the world. Its scholarly, clinical and advocacy work with children and families includes biomedical research on serious childhood disorders, clinical child psychiatry, child development, child psychoanalysis and social policy.

The Cohens are charter members of the Child Study Center Associates, a group of non-medical and professional volunteers that supports and extends efforts of the center's faculty and staff.

Mr. Cohen is a partner in a private investment company, and former president and director of the Jewish Board of Family and Children's Services of New York City. His wife, Amy, a psychotherapist on the staff of the Center for Preventive Psychiatry in

White Plains, N.Y., serves as a trustee of Hampshire College and a board member of the National Center for Clinical Infant Programs.

They have asked that their gift be supplemented by other contributions to reach the \$1.5 million required by the University to establish a senior professorship. The target to announce completion of the fund is Dr. Solnit's 70th birthday in August.

State Academy Elects Three Faculty Members

Three medical school faculty members are among 17 state residents elected to the Connecticut Academy of Science and Engineering. The academy, chartered by the General Assembly, advises the state government regarding public policy issues in science and technology.

The faculty members include:

- Dr. Robert M. Donaldson Jr., deputy dean and David Paige Smith Professor of Medicine. Dr. Donaldson's research interests include internal medicine, gastroenterology and clinical epidemiology. He has participated on study sections and committees for the National Institutes of Health, the Veterans Administration and the American Board of Internal Medicine.
- Dr. Adrian M. Ostfeld, Anna M.R. Lauder Professor of Epidemiology and Public Health. Dr. Ostfeld's expertise includes the epidemiology of cardiovascular disease, the epidemiology of aging, and gerontology. He is an Institute of Medicine member and the editor of the *American Journal of Epidemiology*.
- Edward Zigler, Ph.D., Sterling Professor of Psychology; head, psychology section, Child Study Center; and director of the Bush Center in Child Development. Professor Zigler's professional areas include child development, mental retardation, child care, early childhood intervention, family support and social policy. Among his many honors is the Award for Distinguished Contributions to Psychology in the Public Interest.

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Dr. Bunney Appointed As Endowed Professor

University President Benno C. Schmidt Jr. has announced that Dr. Benjamin S. Bunney, chairman of the psychiatry department, has been named the Charles B.G. Murphy Professor of Psychiatry, an endowed chair.

An internationally known neuropsychopharmacologist, Dr. Bunney has centered his research on the brain's dopamine system, which has been implicated as a part of the major neuronal dysfunction in schizophrenia. His work has included pioneering research on the neurophysiology of the brain's dopamine system and on the site and mechanism of action of antipsychotic drugs.

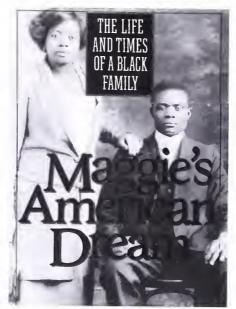


John Tallman Wins NIMH MERIT Award

John Tallman, Ph.D., has won a MERIT award from the National Institute of Mental Health. The award guarantees the University five years of funding totaling \$735,010 for Dr. Tallman's research into GABA, a key protein in the brain. An associate professor pharmacology and psychiatry, Dr. Tallman undertakes his research at the Abraham Ribicoff Research Center at Connecticut Mental Health Center.

The MERIT award will allow him to learn more about the molecular structure and function of GABA receptors, which are present in one-third of the brain's neurons. The receptors allow such anxiety-relieving drugs such as valium and librium to interact with the brain. GABA receptors are also thought to play an important role in the action of barbiturates.

MERIT acronym stands for "Method to Extend Research in Time," and represent an exception to the National Institutes of Health (NIH) general practice of funding grants for one year.



Maggie's American Dream, by Dr. James P. Comer, published in Nov. 1988, is now in its fourth printing.

NEW BOOKS

Sublimination, Inquiries into Theoretical Psychoanalysis, by Dr. Hans W. Loewald, clinical professor emeritus of psychiatry. Yale University Press (New Haven, Conn.) 1988.

Maggie's American Dream, by Dr. James P. Comer, Maurice Falk Professor in the Child Study Center and Psychiatry and associate dean of student affairs. New American Library NAL Books (New York) 1988.

Psychoanalysis: A Theory in Crisis, by Dr. Marshall Edelson, professor of psychiatry. University of Chicago Press (Chicago, Ill.) 1988.

Review of Endocrinology and Reproduction, by Raphael J. Witorsch, Ph.D. '68 with John Hubbard, Ph.D., and Mohammed Kalimi, Ph.D., Renaissance Press (Olney, Md.) 1988.

The Surgeon's Surgeon (Thodor Billroth 1829-1894), by Dr. Kabel B. Absolon '52. Vol. III., Coronado Press (Lawrence, Kan.) 1987; Vol. IV (Final Volume) Kabel Publishers (Rockville, Md.) 1988.

Teaching and Learning of Medical Sciences (Past-Present-Future), revised edition, by Dr. Kabel B. Absolon '52. Kabel Publishers (Rockville, Md.) 1988.

OBITUARIES

Max G. Carter, M.D.

Max G. Carter died Jan. 16 at the Hospital of St. Raphael in New Haven. He was 73.

After 34 years as chief of cardiothoracic surgery at the Hospital of St. Raphael, Dr. Carter returned to private practice in 1983. He also served as an associate clinical professor in cardiothoracic surgery at the School of Medicine and as a member of the governor's task force on cardiovascular surgery. A pioneer of complex cardiovascular operations, Dr. Carter founded one of the first open-heart surgery programs in New England, and in 1958 he undertook the first successful open-heart surgery at a community hospital in Connecticut.

A graduate of the University of Oregon and Harvard Medical School, Dr. Carter served in the Navy in World War II.

He was past president of the New England Chapter of the American College of Chest Physicians and the New Haven Heart Association.

Dr. Carter leaves his wife, Susan; a daughter, Ann Drier; and a granddaughter.

Memorial gifts may be sent to the Hospital of St. Raphael Foundation, 1450 Chapel St., New Haven, CT.

Thomas R. Forbes, Ph.D.

Thomas Rogers Forbes, professor emeritus of anatomy, died Nov. 13 at Connecticut Hospice in Branford. His career at Yale spanned 43 years.

During his early career in anatomy, Dr. Forbes was a fellow and assistant in anatomy at the University of Rochester School of Medicine and instructor at the Johns Hopkins School of Medicine.

In 1942, he was offered a Guggenheim fellowship to study in the anatomy department at Yale but instead chose to serve in Washington, D.C., for the division of medical sciences and on the Committee on Medical Research of the Office of Scientific Research and Development. Dr. Forbes monitored information on government-sponsored research related to military medicine.

In 1945, after completing his post in Washington, Dr. Forbes joined the School of Medicine faculty as an instructor in the department of anatomy. He became a professor and



Professor Emeritus Thomas R. Forbes served the School of Medicine since the end of World War II.

later an assistant dean. In 1960, he accepted the position of associate dean, and from 1974 to 1978 served as chief of the section of gross anatomy, department of surgery. He also served as senior research scholar in the history of medicine and as advisor on Yale medical memorabilia.

Dr. Forbes was appointed the Ebenezer K. Hunt Professor of Anatomy in 1977, and the following year won the George Rosen Prize in the History of Medicine for combining the disciplines of anatomy and history in his teaching. In 1979 he was named professor emeritus and served as a lecturer in surgery from 1979 to 1984.

He is the co-developer of the Hooker-Forbes bio-assay, used for measuring the activity of the hormone progesterone and has authored three books, more than 170 papers and produced several medical and historical films. A native of New York City, Dr. Forbes received a B.A. degree in 1933 and a Ph.D. degree in anatomy in 1937, both from the University of Rochester. In 1962, he received an honorary M.A. degree from Yale.

He was a fellow of the Society of Antiquaries, the Royal Historical Society, the Royal Society of Medicine and the American Association for the Advancement of Science. He was a member of several medical and historical societies, including the American Association of Anatomists, the Endocrine Society, the American Association for the History of Medicine and the International Society for the History of Medicine. He leaves his wife, Helen Allen Forbes; two sons, Thomas R. Forbes Jr. and William M. Forbes; a sister, Mary F. van der Ven; a brother, James B. Forbes; and four grandchildren.

A memorial service for Dr. Forbes was held Dec. 10 in Dwight Chapel. Contributions may be sent for the Thomas R. Forbes Memorial Fund to the Medical Historical Library, Yale School of Medicine, 333 Cedar St., New Haven, CT 06510.

Paul Howard-Flanders

Paul Howard-Flanders, Ph.D., died Sept. 16 in his home in El Cerrito, Calif. He was 69.

Dr. Howard-Flanders retired in July as professor of therapeutic radiology and molecular biophysics at the School of Medicine, and was appointed professor emeritus.

During his 29-year career at Yale, he researched enzyme purification for genetic recombination and repair, biochemical mechanisms of mutagenesis by carcinogenic agents and radiation, and enzymatic repair of DNA recombinants. He served as chief of radiobiology and acting chairman of therapeutic radiology, and was a founding member of the molecular biophysics and biochemistry department in 1966. Since 1963, Dr. Howard-Flanders annually received a research career award from the U.S. Public Health Service.

A native of Bristol, England, he received a bachelor of science degree from Liverpool University and a doctorate from University of London.

From 1946 to 1957, he worked with the experimental radiopathology research unit at Hammersmith Hospital, London, and was a lecturer in biophysics at the University of California, Berkeley in 1958.

Dr. Howard-Flanders leaves his wife, June.

Michael E. Miller, M.D.

Michael E. "Spike" Miller '64 HS, an 18-month heart transplant patient, died Jan. 25 of cardiac arrest at his home in Davis, Calif. Dr. Miller, professor and former chair of the department of pediatrics at the University of California, Davis, School of Medicine, was known for his work on Leiner's disease and leukocyte function. He also was involved in building one of the

world's first computerized intravital microscopes.

Dr. Miller received many awards for his work, including a Research Career Development Award from the National Institutes of Health and the E. Mead Johnson Award for research in pediatrics, given by the American Academy of Pediatrics. He helped establish the Kiwanis Family House at the University of California, Davis Medical Center and the Children's Miracle Telethon.

He leaves his wife, Paula; two daughters, Carolyn and Lisa; and two sons, Richard and Jamie.

Memorial contributions can be sent to the Kiwanis Family House Building Fund, c/o Mary Fithian, director, 2301 48th St., Sacramento, CA 95817.

Joseph E. Sokal, M.D.

Joseph E. Sokal '40 died Oct. 13 at Duke Hospital in Durham, N.C. His burial, with military honors, took place in Arlington National Cemetery. He was 71.

A native of Lvov, Poland, Dr. Sokal was a graduate of Columbia College and Yale School of Medicine.

After serving at Pearl Harbor, he joined the Army Medical Corps, taking part in campaigns on Saipan, Okinawa and the Gilbert Islands. He was a past commander of the 118th Battalion of the Connecticut National Guard and surgeon general of the state of Connecticut. He later became assistant professor of medicine and a Markle scholar at Yale. Dr. Sokal was a leading investigator in clinical and epidemiological aspects of cancer, particularly thyroid cancer.

Dr. Sokal was recruited to Roswell Park Memorial Institute in Buffalo, N.Y., as chief cancer research clinician and chief of medicine B department. He received the Wehr Award from Roswell Park for his research into causes and treatments of various forms of cancer. In 1979, Dr. Sokal retired to Durham, N.C., where he was scholar-in-residence at Duke University.

He leaves his wife, Nancy; two sons, David and Paul; a sister, Ada Booth; a brother, Nathan; and four grandsons.

Memorial contributions may be made to the Joseph E. Sokal Memorial Fund, c/o the Division of Hematology/Oncology, Box 3934, Duke University Medical Center, Durham, N.C. 27710.

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Joseph Milici amidst the School of Medicine memorabilia that traced a 48-year career. (Photograph courtesy of Yale-New Haven Hospital.)

Joseph Milici Dies; YNHH Barber

Joseph Milici, Yale-New Haven Hospital barber for 48 years, died Nov. 16. He was 76. A native of New Haven, he served elected officials and celebrities as well as physicians and patients. He was active on several hospital committees and organized the hospital employees blood drive for 26 years.

Mr. Milici's shop brimmed with Yale medical history. Its walls were covered with autographed pictures of house staff, faculty and School of Medicine classes, including the one of which Mr. Milici was made an honorary member, the Class of 1939. Before his personal collection goes to the School of Medicine Historical Library, it will be displayed in the Sterling Hall of Medicine foyer during the June 1989 alumni reunion weekend.

Contributions may be sent to the Joseph Milici Historical Photograph Collection, Yale School of Medicine Historical Library, c/o Ferenc Gyorgyey, Sterling Hall of Medicine, 333 Cedar St., New Haven, CT 06510.

IN MEMORIAM

Thomas J. Walz January 4, 1988	'21 HS
John M. Bailey August 18, 1988	'29 M.D.
Charles J. Epstein September 24, 1988	'29 M.D.
Luther A. Weigle Jr. September 15, 1988	'35 M.D.
Hyam A. Weiner July 17, 1988	'37 HS
Sherman B. Russell September 1, 1988	ex med '38
Stephen W. Collins Jr. July 31, 1988	ex med '39
Elias Strauss August 2, 1988	'39 HS
Maurice Ross July 22, 1988	'40 M.D.
Joseph E. Sokal October 13, 1988	'40 M.D.
Lawrence Cianciolo September 10, 1988	'42 HS
John B. Goetsch August 1982	'46 HS
Ross B. Love February 10, 1988	'47 HS
Lawrence C. Perry	'47 M.D.
Millington O. Young February 20, 1988	'50 HS
Dan Troy Beatty May 25, 1987	'53 HS
Gunar N. Bohan October 3, 1988	'56 M.P.H.
Jae N. Kim January 2, 1988	'72 HS
Rafael J. Tavares November 8, 1988	'78 M.D.

ALUMNI NEWS

Dr. Lewis A. Scheuer '28 has been awarded the Terence Cardinal Cooke Humanitarian Award by Our Lady of Mercy Hospital, Bronx, N.Y. Dr. Scheuer has been on the staff of the hospital's pediatrics department for more than 50 years.

Dr. Myron E. Wegman '32, dean emeritus of the University of Michigan School of Public Health, was honored with a day-long tribute by his colleagues on his 80th birthday last summer. Dr. Wegman's career in pediatrics and international public health has spanned five decades, including 14 years as dean of Michigan's School of Public Health. He has served as president of the American Public Health Association and secretary-general of the Pan American Sanitary Bureau/World Health Organization. Dr. Wegman has taught at five universities and published more than 200 articles.

Dr. Allan J. Ryan '43-45 HS has been editor-in-chief of *Fitness in Business*, a bi-monthly publication of the Association for Fitness in Business, since 1987.

Dr. James E.D. Gardam '43, vice president of medical services and governmental health programs at the Prudential Insurance Company of America, was honored with a commendation for his leadership in providing Medicare coverage for new medical tests, procedures and services. Dr. Gardam was the only physician honored among the 10 recipients at the annual awards ceremony of the Health Care Financing Administration in Baltimore.

Dr. Elias Marsh '44 received the Clifford W. Beers Award at the 75th celebration dinner of the Clifford Beers Guidance Clinic in New Haven on Nov. 3. He was honored for his 40 years of service to the mental health needs of children and adolescents in Connecticut. Dr. Marsh was director of the Bureau of Mental Hygiene, then part of the Connecticut Department of Health, acting commissioner of the Department of Mental Health and chief of the division of community services. In 1961, he began psychiatric services to low-income minority children in

Hartford, with an organization that later became the Albany Avenue Child Guidance Clinic, where he served as director for six years. In 1968, Gov. John Dempsey appointed Dr. Marsh chairman of the Committee to Study Youthful Wards of the State, which led to the establishment of the Department of Children and Youth Services.

Dr. Sherwin B. Nuland '55, associate clinical professor of surgery and chairman of the board of trustees of the Associates of the Yale Medical Library, has been named a trustee of the Yale-China Association. The association administers programs designed to enhance education and research in China and to contribute to American understanding of China and the Chinese people. Dr. Nuland is the associate editor of the *Journal of the History of Medicine*, literary editor of *Connecticut Medicine* and author of *Doctors: The Biography of Medicine*.

Dr. Lawrence K. Pickett '44 is organizing a continuing care retirement community near Skaneateles, N.Y.

Dr. Frederick Biehuesen '46, retired brigadier general in the U.S. Army, received the 1988 American Academy of Pediatrics Outstanding Service Award, recognizing distinguished contributions to military pediatrics. Dr. Biehuesen served as chief of pediatrics at Letterman Army Medical Center, San Francisco, and Walter Reed Army Medical Center, Washington, D.C. In 1958, Dr. Biehuesen established the first adolescent medicine clinic in the service at Letterman, and from 1971 to 1983 he was oral examiner for the American Board of Pediatrics. Dr. Biehuesen is one of two pediatricians to achieve the rank of brigadier general.

Dr. Robert Chase '47, chief of the division of human anatomy at Stanford University School of Medicine, has collaborated with Dr. Steven Freedman to create a hypermedia anatomy primer. "The Electric Cadaver" combines anatomy text and sets of dissection slides with the latest video and computer technology so students can manipulate computer images to simulate effects of disorders. Dr. Chase hopes that the program will reduce the need for students to dissect cadavers.

Dr. G. Robert Downie '48, has been appointed medical director of the

Brain Injury Rehabilitation Program at the Roger C. Peace Rehabilitation Hospital in Greenville, S.C.

Dr. Dan W. Elliot '49, who retired Nov. 1, has been named professor emeritus of surgery by Wright State University in Dayton, Ohio. In 1976, Dr. Elliot joined Wright State as founding chair of the department of surgery, based at Kettering Medical Center, and served as director of Wright State's integrated general surgery residency program. Prior to his Wright State appointment, Dr. Elliot held faculty positions in surgery and was director of the surgical research laboratories at Ohio State University College of Medicine. He is a fellow of the American College of Surgeons, and in 1987 was president of the Central Surgical Association.

Association of Yale Alumni in Medicine

Dwight F. Miller, M.D. '56, *President*

Thomas P. Kugelman, M.D. '60, *Vice President*

Muriel D. Wolf, M.D. '59, Secretary

Nicholas P.R. Spinelli, M.D. '44, *Past President*

Executive Committee

Sanfurd G. Bluestein, M.D. '46 Joseph F.J. Curi, M.D. '64 Alexander R. Gaudio, M.D. '63 Martin E. Gordon, M.D. '46 Attilio V. Granata, M.D. '77 R. Leonard Kemler, M.D. '43 Dorothea R. Peck, M.D. '43 Jerrold M. Post, M.D. '60 Leon E. Rosenberg, M.D. Romeo A. Vidone, M.D. '57 Patricia A. Wanning, M.D. '40 Warren D. Widmann, M.D. '40

Representatives to the Association of Yale Alumni

Fredric K. Cantor, M.D. '62 James Q. Haralambie, M.D. '35 Gilbert F. Hogan, M.D. '57 Marie-Louise Johnson, M.D. '56 Kristaps J. Keggi, M.D. '59 Richard V. Lee, M.D. '64

R. Leonard Kemler, M.D. '43 Chairman Medical School Alumni Fund Dr. Martha Vaughan '49 and Dr. Milton Corn '55 have been appointed consulting editors of *Academic Medicine* (formerly the *Journal of Medical Education*), published by the Association of American Medical Colleges. Dr. Vaughan is chief of the laboratory of cellular metabolism at the National Heart, Lung and Blood Institute in Bethesda, Md., and Dr. Corn is dean of Georgetown University School of Medicine.

Dr. Rex B. Conn '53, vice chairman for hospital services and professor of pathology at Jefferson Medical College and director of clinical laboratories at Thomas Jefferson University Hospital in Philadelphia, received the 1988 Ward Burdick Award of the American Society of Clinical Pathologists (ASCP). The award is presented to an ASCP fellow who has made the most meritorious contributions to clinical pathology. Dr. Conn has served on the board of directors and the Commission on Graduate Medical Education, and was chairman of the ASCP Education and Materials Advisory Committee. He is a fellow and chairman of the Workload Recording Committee of the College of American Pathologists.

Dr. William Heydorn '59 retired from the U.S. Army in January 1989, after more than 28 years of service. He served as chief of the department of surgery and commander of Letterman Army Medical Center. Dr. Heydorn received the Legion of Merit Award for his teaching programs at the center. He resides in Tiburon, Calif., and works with the American Medical Association

as an accreditation representative in graduate medical education.

Dr. Festus O. Adebonojo '60 spoke on infant mortality and health care for the nation's poor at the eighth annual Zollicoffer Lecture at the University of North Carolina at Chapel Hill. Dr. Adebonojo is pediatrician-nutritionist and chairman of the pediatrics department at Meharry Medical College in Nashville, Tenn.

In the lecture, Dr. Adebonojo noted that the United States is 19th in infant mortality worldwide, and that the nation's poverty level is at its highest in 20 years. He is trying to establish programs that will bring health care within the reach of the poor.

Dr. Robert L. Johnson '60-61 HS, is an associate clinical professor at the University of California School of Medicine, San Francisco; a Lieutenant Colonial in the U.S.A. Reserve and a consultant at Letterman Hospital in San Francisco.

Dr. John T. Harrington '62, chief of medicine at Newton-Wellesley Hospital, Newton, Mass., celebrates 10 years as an editor of Nephrology Forum, a regular feature of *Kidney International*. Nephrology Forum reports on patient-oriented research and clinical investigations. To mark the anniversary, Dr. Harrington and his coeditors conducted forums in Cha-Am, Thailand; Chandigarh, India; and Talloires, France. Dr. Harrington was the main speaker at the Royal College of Physicians of Thailand annual conference, discussing the topic

"Retarding the Progression of Chronic Renal Failure."

Dr. Norman Fost '64 serves as professor and vice chairman of pediatrics and director of the program in medical ethics at the University of Wisconsin. Dr. Fost also chairs the American Academy of Pediatrics Committee on Bioethics.

Dr. Reid R. Heffner '65, was named director of the laboratories at the Erie County Medical Center and acting director of the Erie County Public Health Laboratory. Dr. Heffner is professor of pathology at the SUNY Buffalo School of Medicine and Biomedical Sciences and is a consultant to local hospitals and institutions.

Dr. Philip Bernstein '66, has a private practice in California, specializing in hip and knee joint replacement. He teaches part-time at the Stanford Orthopedic Residency and is a clinical associate professor at Stanford University School of Medicine.

John P. Judson '65–71 HS, accompanied a crew from Connecticut Public Television to Haiti to prepare a documentary on the work of Hunger Relief and Development Inc. of New Haven. Dr. Judson is planning to return to Haiti on a surgical mission with a team from Impact Medical Missions of Owego, N.Y.

Dr. Alan W. Stone '66, has started a private practice of internal medicine in Washington, D.C., after being involved in academic medicine for 13 years, and directing a residency program.

Dr. Elizabeth M. Short '68 has been appointed deputy assistant chief medical director for academic affairs at the Veterans Administration in Washington, D.C., where she will serve as liaison to the Council of Academic Societies. She is the former deputy director for biomedical research at the Association of American Medical Colleges.

Dr. Mark J. Magenheim '71 M.P.H. is serving as president of the Florida Association of County Health Officers through January 1991, along with his position as chairman of the AIDS task force for the same association. Dr. Magenheim is associate



Dr. Adel H. Ayoub HS '73-'75 inserts a Swan-Ganz catheter during a recent medical mission to the People's Republic of China.



Dr. Reid R. Heffner '65

professor (adjunct) of epidemiology at the College of Public Health, University of South Florida.

Dr. John P. Fulkerson '72 has been appointed professor of orthopaedic surgery at the University of Connecticut School of Medicine.

Dr. Donald L. Kent '72, '73-'76 HS, has a private practice of otolaryngology in New York and has been elected secretary/treasurer of the Long Island Society of Otolaryngology.

Dr. Robert J. Ursano '73, '75-77 HS, is professor and associate chairman in the department of psychiatry at the Uniformed Services University of the Health Sciences, School of Medicine in Bethesda, Md. He has completed training at Washington Psychoanalytic Institute and was elected a fellow of the American Psychiatric Association and a member in the American College of Psychiatrists.

Dr. Adel H. Ayoub '73-75 HS, of Valparaiso, Ind., participated in the Joint U.S.-China Cardiovascular Exchange, Sept. 1-16, at the First Teaching Hospital of the Beijing Medical University. Dr. Ayoub served as anesthesiologist for eight successful coronary artery bypass surgeries.

The September 1988 *Boston* magazine reported the results of a survey of 14,188 local doctors asked to name the top primary-care physicians in the Boston area. Among the top 25 were three School of Medicine alumni:

ALUMNI NEWS

Drs. Booker Bush '74, James Dineen '67 and John Harrington '62. Dr. Bush practices at Beth Israel Hospital, Dr. Dineen at Massachusetts General Hospital and General Medical Associates, and Dr. Harrington at Newton-Wellesley Hospital.

Dr. O'dell M. Owens '76, has been appointed to a nine-year term on the University of Cincinnati board of trustees by Ohio Gov. Richard Celeste. Dr. Owens was director of the University of Cincinnati's division of reproductive endocrinology and infertility before joining Christ Hospital as director of reproductive endocrinology and infertility in 1986. He has been vice chair of the Cincinnati Board of Health since 1987.

Lawrence M. Wexler '76 M.P.H., M.Phil., '79 Ph.D. associate professor of community and preventive medicine at New York Medical College, consults three days a week for the Exxon Corp., on epidemiology and health-care cost containment.

Lionel "Chad" Chadwick '81 M.P.H. received his Ph.D. in health economics from the London School of Economics, and has been accepted to a faculty position in health administration and economics at the University of Oregon in the department of school and community health.

Dr. David Menkes '82 is working as a lecturer in psychological medicine at the University of Otago Medical School in Dunedin, New Zealand.

Dr. Moshe Rubin '83, has been appointed assistant professor of clinical medicine at Columbia University and assistant attending physician at the Presbyterian Hospital of New York City.

Dr. Marnin A. Merrick '85 has completed an internal medicine residency at New York Hospital-Cornell Medical Center and moved to Philadelphia to start a fellowship in hematology-oncology at the Hospital of the University of Pennsylvania.

Dr. Michael W. Gilbert '85 was one of 12 recipients of the Parke-Davis



Dr. O'dell M. Owens '76

Teacher Development Awards given by the American Academy of Family Physicians in October. He teaches family medicine at the University of California Irvine Medical Center.

In July, **Dr. Diane C. Louie** '87, will begin a hematopathology fellowship at the Hospital of University of Pennsylvania.

Dr. Douglas A. Nelson '87 is enjoying his second year of pediatric residency at St. Christopher's Hospital for Children in Philadelphia.

Ronald Thibou, a third-year medical student, was presented with an award and plaque on March 2 by Dr. Robert Gifford, associate dean of education and student affairs, on behalf of the American Medical Association division of membership. Mr. Thibou received the award for outstanding efforts in AMA recruitment among fellow students.

Charles B. Baker, a second-year medical student, is one of 33 recipients of a SmithKline Beckman Medical Perspectives Fellowship. He will study the effects of chronic sleep deprivation on house officers' relations to their patients. The program, administered by the National Fund for Medical Education, was established 11 years ago to encourage students to explore humanistic aspects of clinical medicine and health care delivery through creative individual projects.

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ALUMNI REPORT

Summer and autumn in the alumni affairs office involve extensive communications with classes that have concluded reunions in June. Reports of reunion events and class news are forwarded to those who were unable to attend. Concomitantly, plans are set in motion for next spring's reunion program. The program planned for June 9 and 10, 1989, was broadly outlined by AYAM President Dr. Dwight Miller '56; myself, Dr. Nicholas Spinelli '44, director of alumni affairs, and Dr. Myron Genel, associate dean for government and community affairs.

The first meeting in September of the Reunion 1989 planning committee included the chairman, Dr. Joseph F.J. Curi '64; Dr. Joseph Forman '39, secretary of the 50th reunion class; myself and Drs. Paul Goldstein '49, Nicholas Passarelli '59, Remo Fabbri '64 and the AYAM officers.

Dr. Curi announced that the keynote speaker for this reunion will be Dr. Donald W. Seldin '43, recipient of an honorary Doctor of Science degree from Yale in May. His talk will be entitled "The Development of a Department of Medicine—Then and Now." The influence of the Yale system of education on his creating the department of medicine at Southwestern Medical School in Texas will be part of his presentation.

His talk on Friday afternoon at 4 p.m. will be preceded by class seminars held by the 50th, 30th and 25th reunion classes. Reunion participants and their guests may attend any seminar they choose. Drs. Joseph Forman, J. Peter Murphy, Arthur Tucker and William Druckmiller of the Class of 1939 will present "Neuroscience Faculty at Yale—Remembered," an historic appreciation of faculty members Harvey Cushing, John Fulton and Harold Burr. Activities for the Class of 1964, led by Drs. Joseph Curi and Remo Fabbri Jr. and the Class of 1969, moderated by Dr. Nicholas Passarelli, will include dialogues, updates and reminiscences.

Faculty presentations on Saturday morning will feature recently appointed department chairmen: Drs. Edwin L. Cadman of internal medicine; Joseph D. Warshaw of pediatrics; and Robert I. White of diagnostic radiology. Surgical grand rounds are planned.

Of special interest this year will be a symposium chaired by Yale medical alumni numbered among the outstanding medical educators in the nation. Included are Drs. William G. Anlyan of Duke University, Gerard N. Burrow of the University of California at San Diego, and Dr. Seldin. It will be moderated by Dr. Edward Benz Jr. of Yale, who chaired the Task Force for Curriculum Evaluation in 1988. The topic "Medical Education—Will Yesterday's System Educate Tomorrow's Physician?" will address impending and perhaps radical changes in the training of doctors.



Dr. Donald W. Seldin '43

A new feature eagerly anticipated on Saturday afternoon will be a tea (in the old YSM tradition) in the Yale Medical Historical Library. This will feature a dialogue between two physician-authors on our campus, Drs. Jay Katz and Sherwin Nuland: the topic: "The Doctor-Patient Relationship—1990." I hope that this event may become a traditional one at reunions. The number of authors among our alumni/faculty is prodigious, both in creative and in scientific writing.

The end of the four-year capital campaign was officially celebrated in June with the announcement of a total of over \$150 million raised. Alumni contributions totalled \$15 million, according to Dr. John B. Ogilvie '34, who directed alumni solicitations.

The project to locate missing house staff/post-doctoral fellow alumni in alumni records files was concluded by a committee, chaired by Dr. John N. Forrest Jr. of the department of medicine. Rediscovered names and addresses were forwarded to appropriate department chairmen, and represent a response to many such "lost" house staff alumni/ae who have contacted the alumni office. Renewed communication of departmental activities will be possible at last, thanks to this committee's work.

Student affairs continue to occupy the attention of our association officers. A new committee addressing student needs recently met, co-chaired by Drs. Sharon Bonney '76 and Shirley McCarthy '79. Dr. Richard Breck '45 is also a member of this group. It is hoped that liaison between alumni/ae and students will increase and prove useful to students. Dr. Robert Gifford, associate dean for education and student affairs, has presented the association leadership with many projects that represent a student "wish list" for improving the quality of student life. Recent initiatives by the association promise assistance in improving conditions of the Harkness Dormitory, for example.

Spring arrives, then, with many goals and aspirations. As Dr. Miller observes the end of his period as president of AYAM and Dr. Tom Kugelman views the approach of his presidency, Reunion 1989 and two major initiatives articulated in our 1985 position paper remain to be addressed: the updating of our alumni directory of 1984, urgently requested by the younger, more mobile alumni/ae members; and the definition of a new set of bylaws for the Association of Yale Alumni in Medicine—for the first time since 1971.

Dr. Nicholas P.R. Spinelli '44 Director of Alumni Affairs

Highlights: Medical Alumni/ae Weekend

Friday, June 9

8:00 a.m. Registration

1:00 p.m. Class reunion seminars

4:00 Special address: "The Development of a Department of

Medicine—Then and Now," Dr. Donald W. Selden '43, William Buchanan Professor of Internal Medicine, University of Texas, Southwestern Medical Center

5:00 Dean's reception

7:00 Reunion buffet

Saturday, June 10

9:15 a.m. Faculty seminars/surgical grand rounds

10:30 Reunion symposium: "Medical Education: Will

Yesterday's System Educate Tomorrow's Physician?"
Drs. Edward J. Benz Jr., professor of medicine and human genetics; William G. Anlyan '45, chancellor, Duke University; Gerard N. Burrow '58, vice chancellor for health services and dean, School of Medicine, University of California, San Diego; Donald W. Seldin

11:45 Annual meeting, AYA in Medicine

1:00 p.m. Sherry and buffet luncheon

2:45 Tours of medical center, University and New Haven

3:15 First annual reunion tea: "The Doctor-Patient

Relationship—1990," Dr. Jay Katz, the John A. Garver Professor of Law and Psychoanalysis; Dr. Sherwin B. Nuland, associate clinical professor of surgery

All medical graduates and former house staff are welcome to attend alumni weekend. Reunion festivities will be held for classes ending in the years "4" or "9." For more information, call the School of Medicine's Office of Alumni Affairs, (203) 785-4674.

YALE MEDICINE P.O. Box 3333 333 Cedar Street New Haven, CT 06510-8011

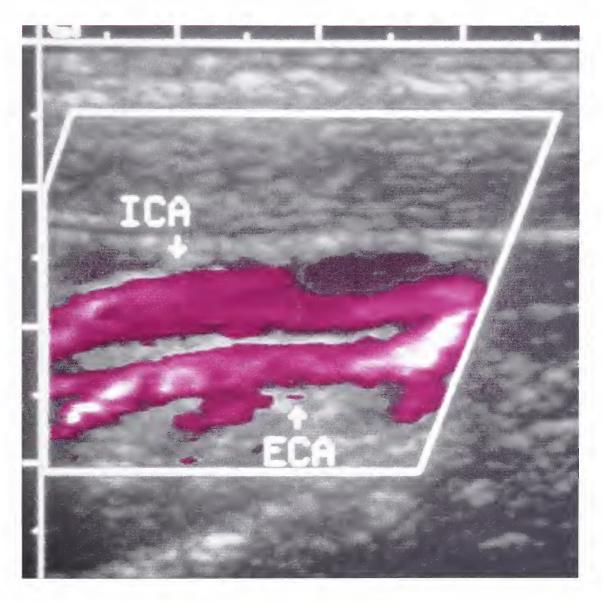
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YALE MEDICINE

Alumni Bulletin of the School of Medicine

Summer 1989



Direct Patient Care: Radiology's New Frontier

YALE MEDICINE

Alumni Bulletin of the School of Medicine

Summer 1989; Volume 23, Number 3

- Dean's Message
 In a letter to the medical school community, Dr. Leon E.
 Rosenberg reminds faculty, staff and alumni/ae of the crucial role that laboratory animals play in biomedical research.
- Hill Health Center: Two Decades—and Growing
 Twenty-one years of support from the School of Medicine have helped the Hill Health Center develop from its humble roots into a vital, multi-million dollar resource for New Haven's poor.



The Mind of the Terrorist
Following a record year for terrorist attacks, Dr. Jerrold
M. Post, '60, who has made a career of studying terrorism,
offers some fascinating—and disturbing—insights.



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Direct Patient Care: Radiology's New Frontier Balloon-tipped catheters, trocars, echo-planar magnetic resonance imaging: the new tools of radiology illustrate that this speciality isn't just for "film readers" anymore.

Metaphors That Enslave Us
Surgeon Barbara Kinder, '71, exhorts the Class of 1989 to be
aware of the symbols that betray a transition from student
idealism to professional cynicism.

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On the cover: A color doppler ultrasound scan of carotid bifurcation employs a technique developed at Yale by Kenneth J.W. Taylor, M.D., Ph.D., professor of diagnostic radiology. Vascular disease in this area frequently causes stroke.

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The magazine is produced by the Office of Public Information: Helaine Patterson, director: Gregory R. Huth, publications editor: Leah D'Eugenio, staff assistant; and Claire Bessinger, senior administrative assistant. The triannual magazine is prepared in cooperation with the Alumni and Development offices at the School of Medicine. Layout and production: Chave Design.

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DEAN'S MESSAGE

Editor's note: In April 1989, Dean Leon E. Rosenberg sent this letter to members of the School of Medicine community. YALE MEDICINE would like to share its important message with our readers.

A central mission of this school of medicine is to improve human health and relieve human suffering through basic and clinical research. You are personally involved, either directly or indirectly, in this mission. As a result of your skill and dedication, we are making major advances toward understanding the many natural risks to human health, wellbeing and longevity. I write at this time to express my growing concern about an unnatural risk to biomedical research and, therefore, to human health. This risk is posed by the efforts of a small but vocal minority of the public who are once again challenging a fundamental assumption underlying health-directed research—namely, that it sometimes requires the use of laboratory animals.

I believe it is time for this medical school community to emphasize the need for and value of the use of animals in research, as one of several ways to advance medical knowledge. I believe that we must also reaffirm our institutional commitment to the humane and ethical treatment of all animals needed for such research, and reject the strident but incorrect claims of those who would totally halt research involving laboratory animals.

Much of our capability to prevent, understand, diagnose and cure human disease has come from research involving animals. In fact, virtually all the "triumphs" of modern public health and clinical medicine have resulted from such research. Let me cite a few examples: the virtual eradication of rabies, tetanus and diphtheria through worldwide vaccination; the effective treatment of diabetes mellitus with insulin; and the correction of congenital heart defects by open heart surgery.

Yale researchers have made and are continuing to make major advances by conducting research which involves animals. Some examples of this work follow:

- The isolation of the poliomyelitis virus from the blood of infected primates was instrumental in the development of vaccines against polio.
- Tests in laboratory animals made possible the sequential use of chemotherapeutic agents in the treatment of breast cancer.
- The rapid detoxification protocol used to treat opiate addiction was worked out in studies employing animals.
- Yale investigators have found a drug which improves memory in elderly monkeys with naturally occurring memory loss, thereby posing a possible strategy for treating Alzheimer's disease.
- More effective treatments are being developed for pneumocystis pneumoniae infection, the chief cause of death in AIDS.
- Human organ transplantation is being advanced by current research in experimental animals designed to improve organ preservation and to prevent immune rejection.

Using animals in medical research is a privilege that our society affords to scientists. This privilege carries with it a compelling responsibility—the ethical and humane treatment of the animals used in research. This school of medicine accepts this responsibility by complying fully with U.S. Public Health Service policy, and by meeting the requirements of the Animal Welfare Act as administered by the U.S. Department of Agriculture. We strive to employ alternatives to animals whenever possible, to use the smallest number of animals necessary for any particular purpose, to house and maintain animals humanely, and to avoid or minimize distress, discomfort or pain. Significant University resources, including professional veterinary care, are devoted to monitor animal use, to assure appropriate treatment of all laboratory animals, and to examine all research protocols involving animals. All of us must be vigilant about meeting both the spirit and the letter of these federal and University regulations.

Humane Treatment

Our responsibility in this matter goes beyond compliance and assurance, however. It extends to education and advocacy. You may be distressed, as I am, by recent accounts in the news media of illegal break-ins at university laboratories, of willful destruction of scientific data, of attempts on the lives of those who are identified with the use of animals in research, and of the introduction of legislation aimed at hobbling, discouraging—even prohibiting—animal research. We must realize that some members of our society oppose all animal research, because they equate animal rights with human rights. They believe so zealously in their ends that they are prepared to use extreme means to achieve them. These people are entitled to their views, but they are not entitled to impose them on the majority in our society who do not share them.

Because we work in a medical environment and are, therefore, well-informed about this issue and its stakes, I ask that you now join this public debate and help educate our families, friends, doctors, patients and legislators. At the same time we must protect and secure our animal research capability using all legal means available. I ask you to join those in our school who have been bearing this burden of education and advocacy for us. They need our voices, our numbers and our strength. There are many ways in which we can help, and I trust that all of us will respond when we are called upon to speak out on this crucial issue.

At Yale, we have a proud tradition of excellence in many aspects of biomedical research and patient care. To extend this tradition toward the compelling and unsolved problems posed by such maladies as AIDS, cancer, drug abuse, heart disease, hypertension, prematurity and schizophrenia, we must continue to gain insights from many directions—including experiments with laboratory animals. Because we so fundamentally believe in this axiom, we must be among those who step forward to champion it. YM

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LETTERS TO THE EDITOR

Thomas R. Forbes Remembered

To the editor:

I write to share an anecdote concerning Professor Thomas R. Forbes. I was very much saddened to read of his death, and I must say that his teaching of anatomy, history of medicine and etymology, as well as his influence personally, had quite an influence on my life.

During my vacations from the beginning of college through medical school, I had always worked and put the money toward my education. I also received scholarships and loans, but by the spring of my third year of medical school, my funds had run out.

Nevertheless, because I had completed research for my thesis, I was determined to travel the United States with sleeping bag, credit card and old car that summer to see firsthand all the straight medical internships in the big city hospitals that I could.

I made my way to Dean Forbes' office in the late spring and proposed to him the following. I would keep a journal of all my visits, and upon my return in the fall, I would share those experiences with him and the members of my class. My journal could be kept

as a permanent record. We all, of course, are aware of Dr. Forbes' serious demeanor and, after I proceeded to unravel this unlikely proposition to him, I said that I needed to borrow \$500 to make the whole thing possible.

He stared across his desk at me, neither frowning nor smiling, for a good 30 seconds. Then, without saying a word, he slowly put his right hand inside his suitcoat pocket, withdrew his personal checkbook and wrote me a check for \$500. I thanked him profusely and left the office. I did, in fact, keep a journal that summer; I visited over 20 hospitals and reported my findings to him in the fall of 1966. Eventually, I even repaid the \$500.

During that summer, after sleeping outside in my sleeping bag under an oak tree on the campus of Georgetown University, I had a meal in the Darnall Hall Cafeteria, where the only available seat was at a table with Brazilian Portuguese instructors. We struck up a conversation, and today, one of those instructors, Lilian May Quintella, is my wife of 22 years.

Dean Forbes' generosity towards me literally changed my life.

Richard J. Hart Jr., M.D. '67 Falls Church, Va.



At right, Thomas R. Forbes, Ph.D.

Grateful Response

To the editor:

This letter is in response to YALE MEDICINE'S Alumni Fund Report (Fall/Winter 1988-1989) and the article about the student financial aid crisis (Spring 1988).

For a good many years, my wife Hilda and I have supported scholarship fund-raising projects involving a great many institutions. Of course, Yale ranks among the foremost. We consider it a privilege and an honor to do so. The reason?

In 1921, I graduated from New Haven High School, passed the college entrance exams and was admitted to Yale—but was unable to raise \$300 for the year's tuition! Today we refer to it as impeded cash flow or diminished fiscal status—mere euphemisms for what in those days was plain, simple poverty. Were it not for a rescue from scholarship funds all during my Sheffield years and med school days, I would have spent my entire adult life as a shoe clerk in a store on Congress Avenue.

At the risk of boring you with "les memoires du temps passe," the trauma of this experience has remained a guiding principle in my professional life—the urge to return to others in some measure who find themselves similarly situated. Giving has brought us great satisfaction and blessings. I heartily endorse the thesis that no one becomes impoverished by giving freely and often.

Our tradition teaches that giving should not be considered as charity but rather considered to do justice as a commandment—to perform acts of righteousness, sharing with one's fellow and not to humiliate him in so doing. One should avidly seize the opportunity to render these services out of pure love and kindness, for time may be short to fulfill these obligations.

Nathan E. Ross, M.D. '28 Hollywood, Fla.

Deja Vu

To the editor:

If the Yale medical school alumni pictured on page 43 of YALE MEDICINE (Fall/Winter 1988) seem perplexed by the caption/question, "Can five years have flown by already?", it is because it is a trick question. My classmates Nancy Good, Linda Hall, Mike Ragowski and Marcia Wade belong to the Class of 1978 and were attending their 10th-year reunion in New Haven in June, 1988.

Duke E. Cameron, M.D. '78 Baltimore, Md.

To the editor:

Ah, how fleeting is fame! After nearly 50 years as a very distant alumnus my name finally appears in the Alumni News column only to have me designated as being in the wrong class—1944? No, it was 1941—and proud of it! Looking forward to our 50th anniversary in 1991.

Jean Emerson Neighbor, M.D. '41 Walnut Creek, Calif.

Editor's reply to Drs. Cameron and Neighbor:

We spoke with Dr. Nicholas Spinelli, the School of Medicine's director of alumni affairs, and he assures us that it is impossible that you and your youthful-looking classmates have already been graduated for the number of years you claim. Nevertheless, we stand corrected.

Patients, Patience

To the editor:

I read with interest the recent article (Spring 1989) on women in medicine at Yale, noting the profiles of five junior faculty women at the School of Medicine. Being a gynecologist and former resident in obstetrics and gynecology at Yale-New Haven (1940–1943), I recall Dr. Dorothy Horstmann in her early days at Yale—women have come a long way since then.

Dr. Setsuko Chambers clearly is impatient, from her remarks, in gaining recognition for the high quality of clinical care that the junior faculty provides. I recall Sir William Smellie's two-volume *Treatise on The Theory and Practice of MidWifery*, published in 1768. Chapter 8 of Vol. II, entitled, "Of



Can 10 years have flown by already?

Photograph by Bill Carte

Lingering or Dangerous Cases, From Weakness, Frights, Floodings, Convulsions, Fevers ETC," encompassed a multitude of dangerous cases all handled by women. Only now are women beginning to gain their rightful place in medical teaching. Yet patience is to be counseled to Dr. Chambers. Excellence in care will provide its own reward.

Hoyt L. Taylor, HS '40-'43 Stuart, Fla.

Curriculum Review

To the editor:

Your report on the Curriculum Task Force makes me want to contribute the two features of my time at Yale which I believe had a particularly positive influence on my education and future.

From almost the first day, all firstand second-year students attended noon rounds, during which patients were presented and the differential diagnosis discussed. These daily clinical experiences allowed us to survive the basic sciences.

Drs. Burr, Greene and Zimmerman showed us early that progress frequently required disagreeing with established wisdom.

In watching my alma mater over the years, the real disappointment was to

see the department of psychiatry become so dominated by psychoanalysis, a non-scientific theory. It distorted the psychiatric opinions of 30 classes of medical students.

I have been forever grateful for the Yale System.

Hans R. Huessy, M.D. '45 Jericho, Vt.

Roosevelt Errata

To the editor:

A couple errors made their way into my article, "I Have Done That, Mrs. Roosevelt" (Spring 1989) that I would like to correct. On page 14, somehow the name of the vibrant and lovely Miss Maureen Corr got misspelled as "Coor." Maureen is such a charming lady with such a great sense of humor that I think she will appreciate being linked up with the brewery. In any event, I am embarrassed about this and wondered if you could correct it.

The second error is a grammatical one. On page 15, the second paragraph, the "neither" is singular and would require the verb "was" rather than "were." With best regards to all, I remain,

Fred C. Collier, M.D. '46 Sidney, Ohio

THE HILL HEALTH CENTER: TWO DECADES—AND GROWING



Hill Health Center's clinic building, on Columbus Avenue.

Photographs by Bo Choi

by Gregory R. Huth, M.P.H. '84

4

Twenty-one years ago it emerged, phoenix-like, in a section of New Haven's Hill neighborhood that had been charred in the riots of the late 1960s. In 1968, the Hill Health Center (HHC) opened its Columbus Avenue headquarters, almost lost in the sprawling concrete building vacated years before by a toy factory.

Yet, despite its humble beginnings, when HHC celebrated its 20th anniversary last December at a black-tie benefit at Yale's Freshman Commons, it represented a homecoming of sorts. For the center's first grant application was written by Dr. Charles D. Cook, then chairman of pediatrics, and several Yale medical faculty colleagues. The physicians used the School of Medicine as an umbrella for the proposed clinic, originally conceived to provide maternal and child health care.

The Yale team's assistance to the neighborhood leaders who founded the Hill Health Center launched a cooperative

Gregory R. Huth is publications editor at the medical school's office of public information.

relationship that has continued as HHC incorporated on its own and developed into a comprehensive community health clinic. Comments Arlene Dildy, an HHC founder and board member, "I think it's been a good relationship. The medical school's been very helpful from the time we organized 21 years ago."

HHC's executive director, Cornell Scott, M.P.H. '68, agrees. "Over the years, the School of Medicine and the Hill Health Center have maintained a wholesome relationship. The medical school has proven itself to be a valuable community resource."

Today, the Hill Health Center provides care to low-income people from throughout New Haven from its home site—which now encompasses two buildings—and from a satellite clinic in the Dixwell neighborhood and a school clinic in Newhallville. With a \$5 million budget, the center's 120 employees serve 14,000 patients whose visits total 80,000.

Milestones in the center's coming of age came in 1971, when HHC incorporated as a not-for-profit agency independent of the School of Medicine. That same year, Cornell Scott assumed the executive director position from Dr. Alvin Novack, a pediatrician and Yale medical faculty

member. Then, in 1981, the center's mission took on an important new dimension.

That year, New Haven's welfare department faced a quandry as it confronted the task of providing primary health care to the neediest people of America's seventh-poorest city. Observes the Rev. William Lee, New Haven's welfare director: "The system was out of control. Not enough individual providers agreed to serve the poor. Welfare clients were overutilizing emergency rooms and ambulances. Many of our clients would go from doctor to doctor, so it was impossible to maintain a medical history for them."

To discover if HHC could help address this problem, Cornell Scott turned to the medical school's department of epidemiology and public health (EPH). A resulting study recommended that the welfare department work with a community health clinic or health maintenance organization that could institute a case-managed approach to providing care. City welfare officials decided the Hill Health Center offered the best such model and contracted with HHC.

Under this model, HHC accepts a set annual fee to serve as the sole source of primary care for New Haven's welfare recipients. The program has been operating successfully since the 1981-1982 fiscal year. Concludes the Rev. Lee: "In my opinion, Hill Health Center provides the best medical services program in Connecticut for welfare recipients." City welfare administrators are not the only public servants who breathe easier because of the center. In serving low-income patients, HHC offers relief to New Haven's two hospitals. Comments James Rawlings, Yale-New Haven Hospital's administrative director of ambulatory services: "We have a good working relationship...The Hill Health Center has taken some of the pressure off our emergency room."

Dr. Joseph B. Warshaw, professor and chairman of pediatrics, adds: "For every infant that HHC prevents from being born at very low birth weight, the community saves up to \$200,000 or more in health care costs. For that amount, we can offer prenatal care and counseling to 150 women."

Overwhelming Need

Despite an ever-growing demand for its services, the Hill Health Center pursues a policy of aggressive outreach. It's a broad-based effort that offers services from drug abuse counseling to prenatal care. HHC's outreach chronicles the diverse—and to a large degree still unmet—health care needs of New Haven's poor.

Take, for example, the Young Parents Outreach Program. It reflects the reality that among New Haven's low-income mothers, about 50 percent receive no prenatal care during the crucial first three months of pregnancy. Moreover, at least 10 to 15 percent of pregnant women in New Haven use illicit drugs during pregnancy—and this does not include those who abuse alcohol.

To help the most vulnerable of this population, every weekday a cadre of HHC workers fans out into low-income neighborhoods to seek out pregnant women and mothers who are under age 18. These young women are invited into a program that offers prenatal care, nutritional services and even assistance with housing.

Another program directed at young mothers teaches them the importance of early stimulation to babies and toddlers. This effort was developed in conjunction with the Connecticut Association for Retarded Citizens.

An experimental, third program, funded by the Office of Maternal and Child Health of the U.S. Department of Health and Human Services, is directed at young fathers. In it, the



Physician's assistant Christiana Nockles tends to a patient's injured thumb during a clinic session at the Columbus House homeless shelter.



By offering comprehensive dental care, the Hill Health Center provides a service that many community health clinics do not even attempt because of high costs.

male partners of Hispanic mothers-to-be take classes to learn how they can best offer their newly forming families the proper emotional, social and financial support.

Other mothers and their children benefit from HHC's outreach to the estimated 6,000 homeless people who live in New Haven. This program has operated for two years, thanks to a U.S. Public Health Service grant under the Stewart B. McKinney Act. Christiana Nockles, a 1984 graduate of the physician associate program, leads mobile teams that venture out several times a week to visit the shelters, transient motels and soup kitchens where the homeless turn for help. Her

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Cornell Scott, M.P.H. '68: "...putting community and University support to work in a meaningful way."

Alumnus Profile: Cornell Scott, M.P.H. '68

"I've experienced two major challenges since taking this job. One has been to establish a permanent institution from what was begun as a demonstration project. The second is related to the first—putting community and University support to work in a meaningful way." — Cornell Scott

After graduating with his M.P.H. degree in 1968, Cornell Scott, affectionately known as "Scotty" to his colleagues, went to work at the Hill Health Center as director of training and education. He's been there ever since, assuming the executive director position in 1971 and overseeing a period of remarkable growth and development.

In his comments at the 20th anniversary celebration of the

Hill Health Center held at Freshman Commons held on Dec. 3, 1988, A. Bartlett Giamatti, commissioner of baseball and former president of the University, said of Cornell Scott:

"...if you have been around New Haven as long as most of us have, and have been immersed in its life in various ways, as many of us have been, then you know that Cornell Scott has never wavered, never wandered from his vision, never ceased to care, never danced away from a problem, never used the institution to promote himself, never forgotten what the institution's nature and purpose are—and that as a result of creating something new and now indispensable in an old, battered, proud city, he has been and will continue to be one of the leaders of this city, one of its handful of eminent citizens—savvy, dignified and superbly accomplished, an eminent citizen through force of character and brains."

teams also frequent other, even sadder, oases, such as the undersides of bridges downtown. During their examinations, Ms. Nockles and her colleagues take a brief medical interview from their clients and monitor blood pressure and temperature. They often pass out items of clothing—fresh socks are especially in demand.

Treatment takes place on site for simple skin abrasions, rashes and other minor complaints. Those who require further care are offered a ride to HHC, or if necessary, to Yale-New Haven Hospital's emergency room.

Ms. Nockles points out that frequently the two- or threeperson team that accompanies her includes not only case manager Toni Harp, an HHC employee, but Yale medical student volunteers as well. "We do see a lot of pathology, and each case contributes to the students' clinical experience," Ms. Nockles observes. "For some students, it's their first direct patient contact. Since this comes in a setting that is not very formal, they learn from the start to draw on their inner resources."

Kathy Ryder, a second-year student who worked with Ms. Nockels last summer as part of COSTEP, a U.S. Public Health Service program, candidly explains why she got involved: "Homelessness is a major problem. Yale is an incredibly privileged place. It's something we have to do. We owe the community something."

Adds Marc Butler, a Class of '91 student who currently volunteers with the mobile team, "I don't want to study the homeless. I want to get to know them. They're not just a class of homeless, nameless people."

The School of Medicine's ongoing cooperation with HHC is reflected in the center's recent initiative against one of New Haven's most serious health threats: AIDS. With 231 AIDS cases reported since 1981, New Haven has the highest incidence in the state.

IV drug users and their sexual partners comprise the majority of the city's HIV-infected people. The New Haven Health Department reports that among addicts who voluntarily entered a local treatment center in 1987, 24 percent were HIV infected. In 1983, less than half that percentage tested positive.

Despite such grim statistics, there is currently no National Institutes of Health-funded AIDS clinical research being undertaken in Connecticut. In April, the American Foundation for AIDS Research began to address this lack of support by awarding HHC \$75,000 to implement a two-step program.

For the first step, the center is organizing itself so that it will be able to conduct a clinical study into the disease. During step two, HHC will provide experimental AIDS drugs to patients as part of controlled clinical trials.

Robert Kilpatrick, the center's assistant director for community relations and resource development, who helped develop the proposal, notes that support from School of Medicine administrators and faculty strengthened the application. Mr. Kilpatrick thanks Deputy Dean Robert M. Donaldson and Halvor G. Aaslestad, Ph.D., assistant dean for research administration, for commenting on the proposal.

These administrators also helped the project by recruiting a scientific advisory committee that comprises some of Yale's leading biomedical researchers: Dr. Ralph I. Horwitz, professor of medicine and epidemiology (committee chairman); Richard A. Flavell, Ph.D., professor of immunobiology; Dwight T. Janerich, D.D.S., M.P.H., professor of epidemiology and in the Child Study Center; and Dr. Warshaw.

Another recent AIDS project illustrates the increasing emphasis on cooperative ventures between HHC and area health care institutions. The Family Support Program, an effort to assist families who have a child with AIDS, is spearheaded by Dr. Brian W. Forsyth, assistant professor of pediatrics and the Child Study Center. Funded by the Public Welfare Foundation, the program employs community people through HHC and involves the services of the center, Yale-New Haven Hospital and the Visiting Nurse Association.

One need only turn to the center's board of directors to discover more behind-the-scenes support from the School of Medicine. Michael J. Coleman, associate dean for administration, has served on the HHC finance committee since 1970 and currently chairs the committee as a board member. He is joined on the 21-member board by four people who are either medical school or EPH alumni.

Paul Kowalski, M.P.H. '79, environmental health project director for New Haven's department of health, is completing his first year as president of the HHC's board. He brings a unique town-gown perspective to the position—born and raised in the Hill neighborhood, he is also an EPH graduate. "I remember as a teenager when the Hill Health Center opened," he comments. "Like the corner grocery store, it's come to play a variety of roles in the neighborhood, not only in terms of its primary function—health care—but also with social support."

Working Together

On some fronts, years of cooperation between the School of Medicine and the center have engendered a kind of symbiotic relationship. For instance, even as HHC staff physicians enjoy clinical appointments at the School of Medicine, Yale medical faculty often conduct research at the center that directly benefits HHC and its patients.

Case-in-point: An article published in the Nov. 7, 1985 New England Journal of Medicine, authored by then-faculty

member Dr. Pablo Vazquez-Sloane, Dr. Robert Windom, HHC chief of pediatrics and assistant clinical professor of pediatrics, and Dr. Howard A. Pearson, professor and former chairman of pediatrics. Their study documented the virtual disappearance of the nutritional anemia which had been endemic before 1971 among HHC patients aged 9 to 36 months. The researchers found that WIC—the federal supplemental food program for women, infants and children—had made the difference. In 1972, HHC established itself as the first WIC site in New Haven. Today, it feeds more than 1,800 low-income mothers and their children. The now-classic Yale study proved to have ramifications far beyond the borders of New Haven. It played a pivotal role on Capitol Hill during the successful 1986 struggle to defend the WIC program in Congress against administration budget cuts.

Current faculty research at HHC includes:

- an evaluation of the Hispanic Males Outreach Program, Lorraine V. Klerman, Dr.P.H., professor of public health;
- a study of recognition and management of emotional and behavioral problems by pediatricians, Dr. John M. Leventhal, associate professor of pediatrics and in the Child Study Center; Sarah M. Horwitz, Ph.D., assistant professor, epidemiology and public health; and Phillip J. Leaf, Ph.D., associate professor, epidemiology and public health;
- a nutrition study among pregnant women, Judith Rodin, Ph.D., Philip R. Allen Professor of Psychology.

HHC also benefits from the medical and EPH students who use the neighborhood community health clinic as a source for research and training. In addition to students in epidemiology and public health who work at HHC to fulfill their praxis (internship) requirement, HHC perenially invites EPH students to undertake community projects at the center. Projects involve teams of students who receive course credit toward their M.P.H. degree for implementing research designed to aid community health agencies.

The previously mentioned study that helped establish HHC as the primary care provider for New Haven welfare recipients resulted from an EPH community project. Recent community projects have included a utilization review of the center's WIC program and an assessment of HHC patient needs for infant child care. Other helpful analysis about the center and its clientele has appeared in master's essays of EPH students or in medical students' M.D. theses.

HHC also serves as a major training resource for the School of Medicine. Medical and physician associate students undertake clerkships there, and residents in ophthalmology receive part of their training at the center.

Despite the Hill Health Center's 21 years of progress in patient care, education and support, and in training and research, the health care needs of New Haven's poor continue to be a pressing problem. Does this imply that HHC has been less than a success?

One of the authors of its original grant proposal, Dr. Albert Solnit, Sterling Professor in the Child Study Center, Pediatrics and Psychiatry, thinks not: "Despite the changing political winds of the last two decades, the Hill Health Center has developed into a major institutional resource for New Haven's low-income families and children. Community participation has made up for what the federal and state governments did not provide. The center has certainly lived up to my hopes and expectations." YM

THE MIND OF THE TERRORIST

by Dr. Jerrold M. Post,'60

The October 1983 truck bombing that destroyed the Marine Barracks in Lebanon, the June 1985 hijacking of a TWA airliner, the hijacking of the Achille Lauro cruise liner, the destruction of Pan Am 103—four dramatic examples of violent acts against innocent victims by political terrorists willing to give their lives for a cause. Such acts have become a regular feature of the political landscape.

While the public regularly assumes such bloodshed can only be the product of deranged minds, the acts of crazed fanatics, most terrorists do not suffer from serious (Axis I) mental disorders; indeed, psychotic disorders would be incompatible with the level of planning and group cooperation required to carry out sophisticated terrorist action. Moreover, behavioral scientists attempting to understand the psychology of individuals drawn to this violent political behavior have not succeeded in identifying a unique "terrorist mindset," a particular psychological type, a particular personality constellation

But while there is a diversity of personalities attracted to the path of terrorism, individuals with particular personality traits and tendencies are drawn to terrorist careers. One pattern frequently described resembles the sociopathic personality—action-oriented, aggressive individuals with a diminished capacity for empathy, who are stimulus-hungry and seek excitement. Another type is the angry paranoid, ready to lash out at his enemies—real and imagined.

Particularly striking is the terrorist's reliance on the psychological mechanisms of "externalization" and "splitting," characteristic of individuals with narcissistic and borderline personality disturbances. The personality development of individuals who have "specialized" in these psychological mechanisms is shaped by a particular type of psychological damage during childhood which produces what clinicians have characterized as narcissistic wounds, leading to the development of what the psychoanalyst Heinz Kohut has termed "the injured self."

Individuals with a damaged self-concept have never fully integrated the good and bad parts of the self. These aspects of the self are "split" into the "me" and the "not me." An individual with this personality constellation idealizes his grandiose self and *splits out* and *projects* onto others all of the hated and devalued weakness within.

This is a dominant mechanism of the destructive charismatic, such as Adolf Hitler, who projects the devalued part of himself onto the interpersonal environment and then attacks and scapegoats the enemy without. Unable to face his own inadequacies, the individual with this personality style needs an outside enemy to blame and attack for his own inner weakness. Such individuals find the polarizing absolutist rhetoric of terrorism extremely attractive.

It is not my intent to suggest that all terrorists suffer from sociopathic, paranoid, borderline or narcissistic personality disorders, or that the psychological mechanisms of externalization and splitting are utilized by every terrorist. It is my distinct impression, however, that these patterns and mechanisms are found with extremely high frequency in the



Dr. Jerrold M. Post, '60

Alumnus Profile: Dr. Jerrold M. Post, '60

Dr. Jerrold M. Post, '60, is professor of psychiatry, political psychology and international affairs at George Washington University. He came to George Washington after a 21-year career with the U.S. government, where he founded and led its Center for the Analysis of Personality and Political Behavior. An editorial board member of Political Psychology and of Terrorism, he serves on the International Task Force for the Prevention of Nuclear Terrorism. He is currently conducting research on "Pathways Into Terrorism" under a grant from the Harry Frank Guggenheim Foundation. A book on disabled political leaders, The Captive King and His Captive Court, will be published by Yale University Press in 1990. Dr. Post is secretary of his School of Medicine Class of 1960 and is on the board of the Association of Yale Alumni in Medicine.

population of terrorists. Moreover, to the extent that terrorist leaders have these personality dispositions, they would tend disproportionately to influence the functioning of the group, and contribute significantly to the uniformity of terrorists' rhetoric and its underlying psycho-logic.

Considering the diversity of causes to which terrorists are committed, the uniformity of their rhetoric is striking. Polarizing and absolutist, it is a rhetoric of "us versus them," without nuance, without shades of gray. "They," the establishment, are the source of all evil, in vivid contrast to "us," the freedom fighters, consumed by righteous rage.

If "they" are the source of our problems, it follows ineluctably in the special psycho-logic of the terrorist, that "they" must be destroyed. It is the only just and moral thing to do. The statement, "It's not us—it's them; they are the cause of our problems," provides a psychologically satisfying explanation for what has gone wrong in their lives.

And a great deal has gone wrong in the lives of most individuals who are drawn to terrorism. Research in the field of political terrorism continues to suffer from a poverty of data which would satisfy even the minimal requirements of social scientists. Perhaps the most rigorous and broad-based investigation of the social background and psychology of terrorists was conducted by a consortium of West German social scientists sponsored by the Ministry of the Interior.

Of particular value for this article are their social-psychological examination of the life course of terrorists, and their study of terrorist group processes. The researchers examined the life course of 250 terrorists—227 left-wing and 23 right-wing. Notably, among left-wing terrorists from the Red Army Faction (RAF) and the 2 June Movement, the social scientists found a high incidence of fragmented families. Some 25 percent of the leftist terrorists had lost one or both parents by the age of 14; loss of the father was found to be especially disruptive.

Seventy-nine percent reported severe conflict, especially with the parents, and the father, when present, was described in hostile terms. One in three had been convicted in juvenile court. Moreover, this group of terrorists demonstrated a pattern of failure both educationally and vocationally. Viewing the terrorists as "advancement oriented and failure prone," the researchers characterized the terrorist career as "the terminal point of a series of abortive adaptation attempts."

While the German study is interdisciplinary and comprehensive, it is subject to criticism because of the lack of a control group. But clinical interviews and memoirs do tend to confirm the sociological impressions cited above. In his psychoanalytically oriented interviews of incarcerated Red Army Faction terrorists, Lorenz Bollinger, a West German social scientist, found developmental histories characterized by narcissistic wounds and a predominant reliance on the psychological mechanisms of splitting and externalization.

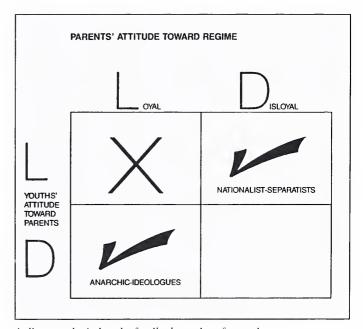
Cross-Cultural Connections

To be sure, each terrorist group is unique and must be studied in the context of its own national culture and history. It would be unwise to generalize to other terrorists from the characteristics of West German left-wing terrorists. Attempting to remedy the lack of a control group identified above, Dr. Franco Ferracuti conducted a similar study with Red Brigade terrorists in Italy, using politically active youth as controls. He found that the terrorists do not differ strikingly from their politically active counterparts in family background. He found an absence of gross psychopathology but observed the personality characteristics described above.

Robert Clark, a George Mason University political scientist, conducted some revealing studies of the social backgrounds of the Basque separatist terrorists ETA (Euzkadi

Ta Askatasuna or the Basque Fatherland and Liberty Movement). The Basque region of Spain is extremely homogeneous. Only 8 percent of its families are of mixed Basque-Spanish origin, and the offspring of these families are reviled as half-breeds. But Clark's studies reveal that more than 40 percent of ETA members come from such mixed Basque-Spanish parentage. This suggests that these outcasts are attempting to "out-Basque the Basques," to demonstrate their authenticity through acts of terrorism.

As depicted in the diagram below, the social dynamics of "anarchic-ideologues," exemplified by West Germany's Red Army Faction, differ strikingly from the dynamics of the "nationalist-separatists," such as ETA or the Provisional Irish Republican Army. The upper left-hand cell signifies that individuals who are at one with parents, who are at one with the regime, do not become terrorists. The upper right-hand cell signifies that "nationalist-separatist" terrorists are loyal to parents who are dissident to the regime; they are carrying on



A diagram depicting the family dynamics of terrorists.

the mission of their parents who were wounded by the establishment. In the lower left-hand cell, the "anarchic-ideologues," in contrast, are dissident to the generation of their family, which is, in turn, identified with the establishment. Through terrorism, they strike out at the parents' generation, and seek to heal inner wounds by attacking the outside enemy.

Religious fundamentalist terrorists have still different social dynamics. Whereas other terrorist groups have a central goal of influencing the West, the target of influence for fundamentalist terrorists is the Deity, and they wish to expel the corrupt modernization of the West. Moreover, they are not conflicted over violence, for, as true believers, they have submitted themselves to religious authority, which has defined their acts of violence as being moral and in God's service.

In addition to these three major classes of terrorism, another type of terrorism has become increasingly prominent in recent years. Single-issue terrorism concerns individuals so committed to a particular social cause they are willing to go to any length, including violence, for that cause. The bombing of abortion clinics fits this description, although for some it also has elements of religious fundamentalist terrorism.

Ecological terrorism is another example. Of particular concern to the medical research community is animal rights terrorism. What an ironic twist of psycho-logic, to justify extreme violence, including killing human beings, in order to avoid violence to animals.

While the social-psychological provenance and dynamics of the "anarchic-ideologues" and "nationalist separatists" are quite different, I should like to suggest a unifying principle: The act of joining a terrorist group represents an attempt to consolidate a fragmented psychological identity, to resolve a split and be at one with oneself and with society. Most importantly, these people want to belong.

Comparable social psychological data are not available for Shi'ite fundamentalist terrorists, but specialists who have closely followed Middle Eastern terrorist groups share the impression that belonging to these fundamentalist groups powerfully contributes to consolidating psychosocial identity at a time of great societal instability and flux.

In summary, then, terrorists for the most part do not demonstrate serious psychopathology. While there is no single personality type, it appears that among them there is a disproportionate representation of individuals who are aggressive and action-oriented, and who place greater-thannormal reliance on the psychological mechanisms of externalization and splitting. There is demographic data which suggest that many terrorists come from the margins of society and have not been successful in their personal, educational and vocational lives. The combination of personal feelings of inadequacy with a reliance on the psychological mechanisms of externalization and splitting make especially attractive a group of like-minded individuals whose credo is: "It's not us—it's them; they are the cause of our problems."

The Power of the Group

While not everyone who finds his way into a terrorist group shares the characteristics described above, to the degree that many in the group do, *especially the leaders*, it gives a particular coloration to the group. For many, terrorist group membership may mark the first time they truly belonged, the first time they felt truly significant, the first time they felt that what they did counted.

The differences between "nationalist-separatist" terrorists and "anarchic-ideologues" in terms of their social origins and psychosocial dynamics are reflected in significantly different group dynamics. "Nationalist-separatist" terrorists are often known in their communities and maintain relationships with friends and family outside of the group. They can move in and out of the group with relative ease.

In contrast, an "anarchic-ideologue's" decision to enter an illegal underground movement is an irrevocable one, what the German scholars call "Der Sprung" (The Leap). Group pressures are especially magnified for an underground group so that it becomes the only source of information and of personal confirmation, and—in the face of external danger and pursuit—the only source of security. The resultant "group pressure cooker" produces extremely powerful forces. In particular, there are pressures to conform and to commit acts of violence.

Given the intensity of the need to belong, the strength of the affiliative needs, and, for many, the as-yet incomplete sense of individual identity, there is a tendency among terrorists to submerge their own identities into the group. Thus, a kind of "group mind" emerges.

This sense of cohesion is magnified by external danger,

which tends to reduce internal divisiveness in unity against the outside enemy. "The group was born under the pressure of pursuit," according to a member of the Red Army Faction, and solidarity was "compelled exclusively by the illegal situation, fashioned into a common destiny." Another Faction member goes so far as to call this pressure "the sole link holding the group together."

Doubts about the legitimacy of the group's goals and actions, are intolerable to such a group. One who questions a group decision risks the wrath of fellow members and possible expulsion. Indeed, the fear is even more profound, for, as one member of the RAF stated, withdrawal is impossible "except by way of the graveyard." The way to get rid of doubt is to get rid of the doubters.

Extreme pressure to conform has been reported by those who have discussed the atmosphere within terrorist groups. Wanda Baeyer-Kaette, a German psychiatrist, described the first meeting of a new recruit to the Heidelberg cell of the RAF. The group, which previously had targeted only representatives of the establishment, such as magistrates and policemen, was discussing a plan to firebomb a major department store. Horrified, the new recruit blurted out, "But that will lead to loss of innocent lives!" A chill fell over the room, and the new recruit quickly realized that to question the consensus was to risk losing his membership in the group. What an interesting paradox that these organizations, whose ideology is intensely against authority, should be so authoritarian and so insist on conformity and unquestioning obedience.

The Cause Is Not The Cause

The group ideology plays an important role in supporting this conformity-inducing group environment. When questions are raised, absolutist ideology becomes the intellectual justification. Indeed, ideology becomes, in effect, the scripture for group morality. In the incident described above, the leader of the cell patiently explained to the new recruit that anyone who would shop in such an opulent store was no innocent, but was indeed a capitalist consumer.

Questions are often raised as to how individuals socialized to a particular moral code could commit such violent antisocial acts. Insofar as one submerges his identity into the group, however, one accepts the group's moral code. What the group, through its ideology, defines as moral, becomes the authority for the compliant member. And if ideology indicates that "they are responsible for our problems," then to destroy them is not only justified, but morally imperative.

Thus, "the cause" is not the cause. The group's cause, as codified in its ideology, becomes the rationale for acts the terrorists are driven to commit. Indeed, the central argument of this position is *that individuals become terrorists in order to join terrorist groups and commit acts of terrorism*. That is surely an extreme statement, but since we are discussing political extremism, perhaps that excess can be forgiven.

Consider the individual, seeking an external target to attack. Before joining the group, he was alone, not particularly successful. Now, as a group member, he is engaged in a life-and-death struggle against the establishment, his picture on "most wanted" posters. He sees his leaders as internationally prominent media personalities. Within certain circles, he is lionized as a hero, and his family is provided for should his acts of heroism lead to his death as a martyr to the cause. Heady stuff that, a role not easily relinquished.

Now, if the group measures the member's dedication by



For 14 years, terrorism has been a way of life in Beirut, Lebanon. There appears to be no end in sight to the bloodshed of civil war.

acts of "revolutionary heroism," this has important implications for the outcomes of intra-group debates and personal rivalries. The advocate of prudence and moderation is likely to lose quickly his position of leadership to a bolder individual committed to the struggle.

For these action-oriented individuals, forced inaction is extremely stressful. What, after all, is a freedom fighter if he does not fight? A terrorist group needs to commit acts of terrorism in order to justify its existence. This suggests a dynamic within the group pressing for the perpetuation of violence and leading toward ever riskier decisions.

This momentum toward ever riskier choices has important implications for mass-casualty terrorism. Analysis conducted for the International Task Force for the Prevention of Nuclear Terrorism leads me to conclude that the internal constraints against the unthinkable prospect of nuclear terrorism are weakening, that while it is still in the realm of "low probability-high consequences," the constraints are diminishing and the probability increasing; a major contribution to that increase are the risk-increasing group dynamics of the terrorist organization.

The Threat of Success

If "the cause" were indeed the cause, should not its achievement lead to the dissolution of terrorist groups committing violent acts in its name? Consider the Basque separatist movement. Many would say that they have achieved a significant proportion of their goals. While not gaining a separate nation, the degree of autonomy they have achieved is remarkable. Why does ETA not clap its collective hands in satisfaction, declare victory, dissolve the organization, and go

back to work in the region's factories? Yet ETA roars on.

For any group or organization, the highest priority is survival. This is especially true for the terrorist group. To succeed in achieving its espoused cause would threaten the goal of survival.

This suggests a position of cybernetic balance for the group. It must be successful enough in its terrorist acts and rhetoric of legitimation to attract members and perpetuate itself, but must not be so successful that it will succeed itself out of business. As manifested in the case of Basque separatist terrorism, the absolutist quality of the ideology and its associated rhetoric guarantees that the terrorist group can always find plausible justifications for continuing its struggle.

If the foregoing conclusions concerning the individual, group and organizational psychology of political terrorism are valid, what are the implications for anti-terrorist policy?

Since terrorist organizations differ in their psychology, structure and dynamics, policies should be tailored to the specific group, which must be understood in its historical, cultural and political context. Terrorists whose only sense of significance comes from being terrorists cannot be forced to give up terrorism, for to do so would be to lose their very reason for being.

As a general rule, the smaller and more autonomous the group, the more counterproductive is external force. When the autonomous cell comes under external threat, the external danger has the consequence of reducing internal divisiveness and uniting the group against the outside enemy. The survival of the group is paramount because of the sense of identity the group provides.

Violent societal counter reactions can transform a tiny band of insignificant individuals into a major opponent of society, making their "fantasy war" a reality; they reaffirm their core belief that "it's us against them and they are out to destroy us." One can indeed make the case that, left to their own devices, these inherently unstable groups will self-destruct.

Similarly, for the terrorist organization for which violence is defined as the only legitimate tactic for achieving their goals, outside threat and a policy of reactive retaliation can not intimidate the leadership into giving up their acts of political violence, for to do so would be to commit organizational suicide.

For complex organizations in which an illegal terrorist wing operates in parallel with a legal political wing, the dynamics—and the policy implications—are again different. (The Palestinian movement is a good example.) In such circumstances, if overall organizational goals are threatened by societal reactions to terrorism, one can make a case that internal organizational pressures can operate to constrain the terrorist wing. But no amount of retaliatory violence can stem the tides of nationalist passion; there must be the prospect of attaining long-cherished goals through legitimate channels.

For state-supported and state-directed terrorist groups, the group is in effect a paramilitary unit under government control. Terrorism is being employed as an equalizing tactic in an undeclared war. In this situation, the individual, group and organizational psychological considerations discussed above are not especially relevant, and the perspective of international relations must be employed.

As the product of generational forces, political terrorism will be here for generations to come. *There is no short-range solution to this problem.* In the long run, the most effective ways of countering terrorism are to reduce external support, to facilitate pathways out of terrorism, and, most importantly, to reduce the attractiveness of the terrorist path for alienated youth. YM

Yale Medicine Summer 1989

DIRECT PATIENT CARE: RADIOLOGY'S NEW FRONTIER



"MRI is basically good at everything in neuroradiology," comments Dr. Gordon Sze. The above illustrates a cross-sectional video image of a patient's brain produced by the MR machine operated jointly by the University and Yale-New Haven Hospital.

by Nancy Pappas

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"I see the day when there will be no more radiologists."

Dr. Robert I. White Jr., professor and chairman of Yale's department of diagnostic radiology, chuckles as he recalls this 1971 statement by a renowned medical academician. The prediction was based on the fact that, at that time, primary specialists were learning how to read and interpret x-rays without the help of radiologists.

Today, Dr. White, who is also chairman of diagnostic imaging at Yale-New Haven Hospital, is happy to report that radiology's future has never been brighter. In fact, he asserts, "Radiologic technology has grown so rapidly that no other medical specialty has been able to keep up with it."

The department's mission, the chairman explains, is to work side by side with referring specialties to maximize benefits from the new technologies. His own clinical work well illustrates that mission. Dr. White, during a typical week last spring:

Nancy Pappas is a free-lance medical writer who contributes regularly to this magazine.

- Blocked two varicoceles using balloon-tipped catheters;
- Performed an angioplasty on a narrowed iliac artery;
- Used a catheter to deliver a collagen plug to the blood supply of a fragile nasal tumor, creating a dry field for the surgeon and greatly reducing the chances of catastrophic bleeding during the operation;
- Undertook an angiographic evaluation of a patient with a narrowed leg artery, which showed the blockage was too long for angioplasty and therefore would require a bypass graft.

Whatever happened to the specialty that attracted physicians more comfortable with machines than with people?

Dr. White cheerfully admits, "I'm a throwback to clinical medicine. I really enjoy patients. We radiologists want to dispel the notion that we're just film readers. Not only do we have the most wonderful tools in medicine to see inside the body; we also want to use these tools to solve disease questions, in collaboration with our colleagues in medicine, pediatrics and surgery."

YALE MEDICINE Summer 1989

Dr. White, who came to Yale from Johns Hopkins in March 1988, calls himself an "interventional radiologist"—a subspecialty that didn't exist a decade ago. "Then, radiology was a supportive specialty, not a primary specialty," he explains. Today that's no longer the case.

Dr. White dates the revolution in radiology from 1972, the year the CT (computed tomography) scan came on the scene. Able to present precise cross-sections of internal structures with astonishing clarity, CT technology opened a new world to radiologists.

For instance, they now could work with neurologists to diagnose brain lesions never before visible, or detectable only through pneumoencephalography, a dangerous and painful process that requires introducing air or gas into the brain's blood vessels for the sake of taking a clear x-ray. At the same time, fluoroscopy and ultrasound further enhanced the diagnostic capabilities of radiologists by allowing them to visualize real-time internal processes.

How do patients benefit from this advancing technology? They are better served by radiologists who can localize lesions with three-dimensional precision, and thus treat many internal problems without surgery. "We're often able to intervene earlier because what we do is safer," Dr. White points out. Moreover, the procedures are generally much less expensive than the surgeries they replace or delay. Already, at Yale, radiology-based interventions that would have seemed like science fiction 20 years ago have become fixtures of daily clinical life.

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Through the looking glass: Framed by a CT device, Dr. Arthur T. Rosenfield interviews a patient before she undergoes a scanning procedure. CT's sharp, three-dimensional images have allowed physicians to aspirate internal lesions with increasing accuracy.

The Unfolding Saga

From the time magnetic resonance (MR) imaging was introduced, radiologists knew it would revolutionize their specialty. Now they're beginning to glimpse how far that revolution may take them.

Comments Dr. Gordon Sze, Yale's new chief of neuroradiology: "Even though I'm very young—34 years old—I feel very much like an old-timer. Things we first saw on MR that we thought were so puzzling, we now teach on the first day."

By way of illustration, Dr. Sze recalls that, at first, radiologists did not know what to make of startlingly clear MR images of normal cerebral-spinal fluid flow, and assumed the pictures indicated a vascular malformation. He concludes: "MR is good at almost everything in neuroradiology."

"It's more than met our expectations," concurs Dr. Shirley M. McCarthy, '79, HS '79-'83, clinical director of Yale-New Haven Hospital's MRI service and associate professor of diagnostic imaging. "It's basically revolutionized imaging of neurological and musculoskeletal diseases."

Coincidentally, both Drs. McCarthy and Sze were training at the University of California at San Francisco when that medical center got the nation's first experimental MRI machine in 1983. Both recall its impact.

"We thought, 'You've got to be kidding me! Put somebody in a magnet and get a picture? No way!" Dr. McCarthy exclaims. "Now we're developing new applications almost monthly." Some of those developments include using MRI for imaging rotator cuff tears in the shoulder, in better analyzing ankle injuries and in localizing gynecologic masses.

The MR Center, a joint program of the University and Yale-New Haven Hospital, got its first MRI device in 1986, a 1.5 Tesla General Electric machine. Although the machine operates 16 to 18 hours a day, there's a backlog of 500 patients. State approval was recently granted for a second machine—even more advanced—that will be installed within a year.

MR images are obtained by placing the patient in a powerful magnetic field. The nuclei of hydrogen atoms (protons) of water and fat in the body align like small magnets. Radio frequency pulses are then used to flip these protons, which subsequently give off energy when they return to equilibrium.

The radio energy released in this process is measured as an electrical current in a receiver coil (antenna). Images based on different tissue characteristics can be obtained by changing the sequence of pulsed radio frequency.

Because the energy exchange is very small—10 billion times less than that involved in x-ray CT photon interaction with tissue—MR is very safe. However, it is also expensive. Special steel rooms are required to contain the strong magnetic field and exclude external radio waves. And the magnets must be cooled to -450 degrees F, so refrigeration costs are high. Finally, sophisticated computer systems are necessary to reconstruct MR images.

This technology provides unsurpassed contrast resolution which, for example, makes possible extremely clear pictures of the spinal cord. "It's wiped out arthrograms and myelograms—which demonstrated the cord only as a shadow and which patients hated," Dr. McCarthy points out. "The neuroradiology of 15 years ago would be unrecognizable today. MR is in the process of supplanting neuro-CT."

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Dr. Shirley M. McCarthy, '79, is refining a method of staging endometrial cancer that uses MR's ability to detect the degree to which tumor has invaded the uterine wall.

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Dr. Sze has developed magnetic contrast agents that enhance MR's already-spectacular neurologic diagnostic capabilities. Using a contrast agent called gadolinium, he "lights up" spinal tumors—a technique that has become the standard method of diagnosis. "Before, these tumors were difficult to visualize even on MR," Dr. Sze explains.

In addition to this important work, Yale neuroradiologists cooperate with the medical school's neurosurgeons in evaluating patients for epilepsy surgery. "We were among the first to use MR to accurately evaluate mesial temporal sclerosis, an important cause of temporal lobe epilepsy," Dr. Sze says. "You couldn't see it at all before MR."

Dr. McCarthy points out that increasingly, MR is being used in selected neurological trauma cases as well. "For trauma to the spinal cord or brain, MR is extremely sensitive. It can show all sorts of contusions in muscle, brain and spinal cord that were never even suspected before."

Where MR has proven even more surprising, Dr. McCarthy says, is in its ability to differentiate among various body tissues. She predicts this capability will help in her research, which focuses on MR's gynecologic applications.

Currently, researchers are using MRI to refine the method of staging endometrial cancer, using its ability to detect the degree to which the tumor has invaded uterine muscle. Once the MR staging methodology is proven, many women with noninvasive tumors will be spared the now-standard preoperative radiation therapy, Dr. McCarthy predicts.

For infertility patients, MR can also define the extent, location and type of fibroids, monitor the course of endometriosis and "tell whether a uterine anomaly is surgically treatable or not," she adds.

Moreover, MR is the only imaging technique that can

directly show certain types of musculoskeletal disease. Dr. McCarthy demonstrates this by calling up a knee image stored in the system's memory. Not only does the image show an effusion under the kneecap, it also reveals the effusion's source—a minuscule tear in the meniscal cartilage.

The technology's ability to image the inside of bone has transformed some cancer treatments as well, Dr. McCarthy points out: "We have had several cases where we've picked up bone metastases no one could have seen any other way."

The principal disadvantage to MR is the length of time it takes to complete a scan—from 30 to 60 minutes, depending on the part of the body to be imaged. The long exposure time hampers imaging parts of the body with intrinsic movement, such as the lungs and bowel. "You can't tell someone to stop breathing for an hour," observes Dr. Sze.

All that could change in a few months, when the School of Medicine receives an investigational machine that offers an even newer technology known as echo-planar MR. "We're going to be the third site in the world to get this technology," Dr. Sze says, his voice betraying anticipation. "It's one of the most exciting things going on in radiology."

Echo-planar devices are able to scan the whole body within seconds. Instead of relying on a series of electromagnetic pulses to construct a single picture as does conventional MR, an echo-planar device needs only one pulse, which it uses to construct an image in milliseconds.

Such rapid imaging will make it possible to dramatically visualize the heart, gastrointestinal tract and even the flow of cerebrospinal fluid, Dr. Sze explains. "With this, we hope to be able to diagnose strokes very early, so that in conjunction with our colleagues in neurology we can attempt to reverse strokes within hours," Dr. Sze says. "Instead of having to wait, we'll be able to follow the size of the damaged region to see which areas of the brain are not perfused."

Take angiography—the art of visualizing arterial anatomy and blood flow by using radiographic contrast agents. A specialist in this field, Dr. White is determined to practice clinical angiography at least 25 percent of his time in spite of the administrative demands of his department chairmanship.

At first, angiography was just what its name describes in Greek—examining blood vessels. But soon interventional radiology proved to be a logical outgrowth of the technique. Notes Dr. White: "We found that we could not only obtain pictures; we could actually treat the diseases."

Adds Dr. Donald F. Denny Jr., associate professor of diagnostic imaging and chief of vascular and interventional radiology: "Angiographers got very good at using small devices to get into remote places in the body."

While at Johns Hopkins, Dr. White devised several now-standard interventional techniques that wed angiography with the use of flexible catheters that can reach virtually any vascular target. In 1979, for example, he developed a technique to repair varicoceles, a condition in which the veins of the spermatic cord dilate, often dramatically reducing a man's sperm count. Under angiographic guidance, Dr. White threads a catheter to the vessel feeding the varicocele. There, he inflates a silicone balloon the size of a sunflower seed to form a permanent block to the varicocele.

Dr. White uses a similar technique to treat patients with hereditary hemorrhagic telangiectasia, associated with a congenital arteriovenous malformation in the lung that frequently results in catastrophic blood clots and stroke. Standard treatment involves surgical removal of the malformation along with massive amounts of surrounding



Dr. Robert 1. White Jr. displays the balloon-tipped catheter that he pioneered in 1976. The detachable balloon is used to treat vascular malformations in the lung, varicoceles, and post-traumatic aneurisms in the brain and other parts of the body.

lung tissue. The recovery period can be weeks or months. By contrast, Dr. White's balloon catheter technique takes three hours; the typical patient can leave the hospital one day after the procedure.

With the exception of the heart's blood vessels, which remain firmly in the purview of cardiology, there are virtually no blood vessels in the body inaccessible to the angiographer's catheter. "We close off blood vessels that shouldn't be there, or open up those that should be there," Dr. Denny explains.

On the day of this interview, Dr. Denny used a balloon catheter to dilate the renal artery of a 10-year-old girl who was brought to Yale-New Haven Hospital with dangerously high blood pressure. (The diagnosis of the stricture had been made angiographically as well.) "At the end of the procedure her blood pressure was normal," he notes. She was able to go home the next day.

The previous day, Dr. Denny had performed angiography on a man who had entered the hospital for a bypass graft to relieve pain in his right buttock. An angiogram had revealed a narrowing of the man's iliac artery—the artery that has proven most amenable to balloon dilation, with a restenosis rate of only about 5 percent, compared to 30 percent for coronary and peripheral vessel angioplasty. The dilation was successful.

He'd told his boss he was going to be out for at least a month after surgery," Dr. Denny comments, chuckling, "But he'll be going home tomorrow."

Aspiration Fulfilled: Replacing the Scalpel

Angioplasty is not the only major advance in direct patient care recently offered by radiologists. Ultrasound and CT—with its sharp, three-dimensional images of internal structures—have enabled physicians to guide their scalpels and needles more precisely inside the body.

"Using flouroscopy, you don't exactly know where you are," explains Dr. Arthur T. Rosenfield, professor of diagnostic radiology and chief of the department's section of computed tomography. "Both ultrasound and CT can be used to guide needles precisely."

Picture it this way: a flouroscope or x-ray presents only two of three dimensions. Without the third dimension, the radiologist can't know whether a needle has hit a lesion, or is lying over or under it. With CT or ultrasound, however, radiologists not only can locate the latitude and longitude the cross-section occupies within the image; they can pinpoint the depth, as well.

It took a while, Dr. Rosenfield points out, before radiologists grasped the potential of this capability. Initially, they assumed that many deep lesions were inaccessible to needles because they lay underneath vital internal organs. "Then we discovered that we could run a needle through kidney or bowel without damaging them," he says.

The ability to direct a needle into the center of a small internal target has opened up two major interventional technologies: the biopsy and the ability to drain abscesses.

"We can aspirate almost any kind of small mass," Dr. Rosenfield notes. "Before, when a small mass was identified, it required surgery to detect its nature." Now, it's a simple matter of guiding a thin hollow needle to the mass and sampling it for analysis.

"It's a simple technique—I hate to admit it," Dr. Rosenfield confesses. "We can find two-centimeter lesions and can hit them with a needle nine out of ten times."

He adds: "We ordinarily do a couple of biopsies a day, of bone, chest, abdomen, soft tissue. Patients come in and get the biopsy in perhaps a half hour. We have them wait four hours, then they go home. It saves a lot of money."

While needle biopsies have sped up the diagnostic process, abscess localization has saved lives. "Before sectional imaging, abscesses were really a killer. They went undetected and spread infection throughout the body before anybody

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Since 1986, MRI has proven to be a powerful diagnostic tool for Yale radiologists. The MR machine produces a magnetic field measured at 1.5 Tesla—more than 15,000 times stronger than the Earth's magnetic field at the North or South poles. Another, faster machine is on order to cut a backlog of 500 patients.

knew about them," Dr. Rosenfield explains. "CT and ultrasound allow us to identify abscesses fairly rapidly and get a needle into them." Once abscesses have been localized and characterized, the appropriate pharmacological or surgical treatment can be applied.

Radiologists have developed a variety of methods to get at abscesses, depending on their composition. They can simply introduce a trocar—Dr. Rosenfield calls it "a big needle with a catheter"—directly into the lesion. Or they can reach the lesion with a needle and then dilate the opening with progressively larger rods until the passage is big enough to accommodate a catheter. Once the appropriate needle reaches its target, the radiologist can switch to fluoroscopy for real-time information on the success of his or her manipulations.

Even the human brain has yielded to the therapeutic probes of radiological pioneers. Though the neuroradiology subspecialty is still primarily a diagnostic area, "interventional neuroradiology is a very active field," according to Dr. Gordon Sze, associate professor of radiology and co-chief of neuroradiology. (See "MRI: The Unfolding Saga," page 13.)

One promising approach applies to cranial vessels, using techniques Drs. White and Denny have developed for other areas of the vascular system. For instance, Yale will soon become a center for the preoperative embolization of cerebral arteriovenous malformations—tangles of abnormal arteries and veins that feed into each other without any capillaries.

These arteries frequently bleed or enlarge to press on vital brain structures.

Until recently, the threat of intraoperative hemorrhage prevented surgeons from removing many of these structures, Dr. Sze notes. With catheterization and plugging of feeder arteries, however, the risk of bleeding drops significantly.

Yale is also preparing to offer a new technology for removing herniated disks without surgery. Dr. Sze explains: "Under fluoroscopic guidance, you put a little tube into the disk space and aspirate the disk material."

A Changing Department

Given his leadership in developing interventional techniques, it should come as no surprise that Dr. White is an outspoken advocate of subspecialization. While acknowledging his position is not universally accepted, he insists that radiology is diversifying so rapidly that specialization is necessary.

"If we're going to help patients as other specialties do, we have to start acting like the other specialties," Dr. White submits. "Five years from now, in community radiology practices, I'd like to see patients referred to a subspecialist in the radiology group. That's already happening in leading medical centers like ours."

This trend in practice is engendering changes at the School of Medicine. Both the number of elective subspecialty courses in radiology and the number of students attending them are increasing. Dr. White, moreover, is advocating that general radiology, now a three-week elective, be worked into the core curriculum. Beginning in 1990, Yale's radiology residency program will undergo a major change. Instead of a four-year residency, followed by a year's fellowship, Yale will offer a three-year residency followed by a one-year "concentrated residency" in such subspecialties as MR, interventional radiology and neuroradiology. A one-year fellowship in the chosen subspecialty will follow to complete the graduate training.

Reflecting the strength of the department, residency applications are booming. Last year, the department received nearly 500 applications for seven openings.

Concludes Dr. White: "While maintaining Yale's reputation for excellence in clinical radiology and research, I'd like to see us become a model for training of young radiologists in clinical and research techniques leading to greater understanding of disease processes." YM

METAPHORS THAT ENSLAVE US

by Dr. Barbara Kinder

Editor's note: The 1989 medical school commencement address was delivered on May 29 by Dr. Barbara Kinder, associate professor of surgery and in the Cancer Center.

It is a tremendous honor to be asked to address you in the waning moments of your medical school career. As you've prepared for internship and residency, you have heard much about the challenges that lie ahead. I will not dwell on the immediate tasks of learning to assume direct responsibility for another's well-being and indeed life, nor on the problem of continuing the fine medical education that has only begun here and will come to full maturity in the context of the actual practice of medicine. These are issues that all of you have already considered.

I would like to take a longer view with you for a few minutes and talk about the challenge of preserving your personal definition of medicine as a profession, and of yourself as a physician over the years that lie ahead. I will try to persuade you that this is not a trivial goal and also that the future of the best that has been medicine depends on the ability of your particular generation of physicians to achieve this goal.

We at Yale come from diverse backgrounds but have in common a curiosity about the biology of health and disease and most particularly a desire to place our knowledge in the service of our fellow man. This, of course, is not completely selfless; there is tremendous gratification in caring for patients. But *caring for* are the operative words.

In the second half of this century, there has arisen on the part of the public the strong conviction that the caring part has disappeared from medicine. The reasons for this are complex, and some are beyond the capability of physicians as individuals or as a group to influence. However, we do bear some responsibility for the often adversarial relationship that has developed between patient and physician.

To their credit, medical students have often been most sensitive to the needs of those we serve. Since I've been a Yale faculty member, students have taken a lead in enriching the medical curriculum by organizing and supporting more nontraditional courses and lectures in ethics, nutrition—the interface of medicine and the humanities in general.

As students, you will move forward from commencement, as my graduating class did, with a primarily humanistic perspective. I believe that this frame of reference is critical for your happiness and success as a physician. Our patients, however, would say that it is precisely this humanism that is lacking in doctors today. What happens after graduation to change this perspective?

I think that some clues can be found in the conceptual metaphors we use to represent medicine as we move through a professional career. These metaphors are initially harmless, often amusing, even useful caricatures, but can in time come to dictate behavior.

To the Ramparts

As an illustration of this process, let me give you an example taken from a paper on metaphor by George Lakoff and Mark Johnson: "Argument is War." Indeed, that metaphor in our culture appears to have operational validity: "I demolished his argument; Your claims are indefensible; He attacked my position;" etc.

Alumna Profile: Dr. Barbara Kinder, '71

In May, Dr. Barbara Kinder, associate professor of surgery and in the Cancer Center, was named chief of surgery at the Veterans Administration Medical Center in West Haven. She also is an attending surgeon and chief of endocrine surgery at Yale-New Haven Hospital. She has focused her clinical and research interest on surgical endocrinology and the cell biology of secretory systems.

A native of Cleveland, Ohio, Dr. Kinder received her B.A. degree magna cum laude in 1967 from Smith College and her Yale medical degree cum laude. She is past president of the Connecticut Society of American Board Surgeons.



Dr. Barbara Kinder: "We do bear some responsibility for the often adversarial relationship that has developed between patient and physician."

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Reciting the Oath of Hippocrates (from left): David Avigan, Thelma Asare, Eddy Anglade and Katherine Albert.

Photographs by Harry Bishop

But what if there were a culture where argument was viewed as dance. Perhaps now the emphasis would be more on the discipline and stamina of the participants, more on the achievement of a balanced, aesthetic whole. You can see that though the factual components might be the same in the two cultures, the whole feeling is much different; the combative, antagonistic flavor is gone.

The metaphors for the next few years of your lives have been primarily taken from the military. Even if you're not doing a surgical residency, you'll be in the trenches, making rounds with the troops, triaging patients, living under conditions not too much different from a bivouac, and with about as much sleep. Small wonder that many come out the other end of residency training having lost pieces of their humanistic anatomy. Small wonder that the presence of women in medicine in greater numbers today has still not perceptibly changed the amount of nurturing that goes on. They're in uniform and marching, too.

As a veteran of this process, I would be the first to argue that the military metaphor has its functional utility as a model for training programs. The lessons of discipline, physical stamina, assertiveness, coolness under pressure and ability to work as a member of a team are certainly critical to the development of a resourceful, competent physician.

One might, however, wish to alter the metaphor to one that would specify more sensitivity, warmth and compassion, one that would not imply the physical and emotional deprivation inherent in the military model. Such changes in residency programs are indeed beginning, are being demanded by young physicians and by graduate medical education governing boards alike. It will be your opportunity to help develop

metaphors for the residency programs of the future and to select those that will permit you to achieve a balanced personal and professional life.

And what happens after the rigors of residency? Surely one can return to the metaphor of the physician as healer. But the metaphors of post-residency life, whether it be academic or private practice, are taken from the world of business. Thus, we hear and read increasingly about evaluations of the cost effectiveness of certain diagnostic and therapeutic options. Mammography has been reported, for example, to be cost effective as a screening procedure in women over—but not under—age 50. One must be careful to consider what this sort of information really means. It merely is a reflection of the decreased prevalence of breast cancer in the younger population, and therefore, the relatively greater cost of identifying each case. It is not a value judgement of the relative worth of life among women of different age groups.

This seems obvious enough, but as society becomes immersed in these assessments, it is easy for the public and us as physicians to confuse the business message with a humanistic value judgment. More ominous examples exist of the extent to which we have embraced the metaphor of business. I am, of course, referring to such things as advertising medical services and, most appalling, the practice of referring to patients as "clients."

A Proper Balance

I would hasten to add that I am very much concerned about the prohibitive cost of health care and in no way suggest that the efforts to put medicine on a more businesslike, costeffective basis are inappropriate. As an academically based surgeon working in a hospital which has as part of its mission the care of indigent patients, I am terribly worried about how that care is going to be financed. I am merely suggesting that we as physicians need to be able clearly to distinguish between means and ends and to be selective in the way we apply the metaphor of business to medicine.

Indiscriminate application of the attitudes and techniques of business to the conduct of our profession will confirm the impression of the public that doctors are "in it for the money" and it may mislead some of us as well. In the practice of medicine—if profit becomes the bottom line—the value of your interaction with patients becomes determined by the marketplace, which then ultimately dictates what physicians and society as a whole come to see as worth doing.

We have already seen the effect of this principle on career choices of young physicians. Many more are going into so-called "interventional" specialties: surgery; cardiology; gastroenterology; radiology; in part, perhaps, because possibilities of remuneration offer financial security and the ability to pay one's educational debts. If fiscal imperatives rather than a passion for the profession become preeminent, then the real joy of the practice of medicine is lost. Medicine is a very hard job, but it is a wonderful profession.

I believe that the metaphors we select to describe our lives have the power to structure our activities and to shape our philosophies. Many metaphors can usefully illuminate one aspect of medicine but will necessarily exclude those facets that are not coherent with the metaphor. Thus, military and business metaphors provide specific directives for action but cannot deal at all with the humanistic aspects of medicine.

A professional life lived entirely within the metaphors of business or the military will be a limited and impoverished one. I encourage you as you move through the world of medicine to check your metaphors from time to time to be sure that they are serving and not enslaving you. Your personal and professional lives and the character of medicine in the future will be greatly enhanced. YM



Looking on with Dr. Kinder as the graduating class gathers (from left): Dean Rosenberg, Dr. Robert H. Gifford, associate dean for education and student affairs, and Dr. James P. Comer, associate dean for student affairs.

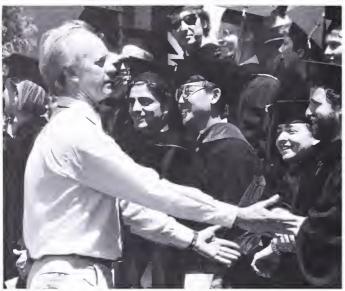


Before delivering the 1989 commencement address, Dr. Kinder shares a quiet moment with her daughter, Caitlín, and husband, Dr. C. Elton Cahow, the William H. Carmalt Professor of Surgery and in the Cancer Center (left). At right is Dr. William F. Collins Jr., chairman and the Harvey and Kate Cushing Professor of Surgery. Dr. Gary E. Friedlaender, chairman and professor of orthopaedics and rehabilitation, stands in the background.



Mr. Peabody, the cartoon character genius, says it succinctly.

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A plea for order rings out as the Class of 1989 gathers at 333 Cedar St. for its portrait.



Jean Marsters brings along some California roll for her kewpie doll in case hunger strikes during the ceremony.

PHOTO ESSAY: COMMENCEMENT 1989



Howard Kesselman receives special congratulations.



Amy Kindrick models cap and gown for a partisan admirer.



(From left) Eve Colson, Kee Chung, Don Chin, Stephen Bharucha and Susan Bonar await the awarding of diplomas.



Diploma in hand, Zachary Klett pauses to pose with a friend.



A video cameraman and best boy employ their craft.

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RESIDENCY PLACEMENTS 1989

CALIFORNIA

Cedars-Sinai Medical Center, Los Angeles Virginia Sink, diagnostic radiology

Mount Zion Hospital/Medical Center, San Francisco Michael Price, medicine*

Pacific Presbyterian Medical Center, San Francisco Susan Carter, medicine

Santa Clara Valley Medical Center, San Jose Michael Price, diagnostic radiology

Stanford University Hospital, Palo Alto James Ford, internal medicine Charles Sonu, orthopedic surgery

UCLA Medical Center, Los Angeles Sina Nasri-Chenijani, *otolaryngology* Jacqueline Pachon, pediatrics Phillip Yang, medicine

UCLA Neuropsychiatric Institute, Los Angeles Jodi Halpern, psychiatry

University of California-San Diego Darryl Wong, medicine

University of California-San Francisco Harold Barron, internal medicine Jennifer Bock, surgery, otolaryngology Jean Marsters, psychiatry David Stier, pediatrics Amy Tyson, psychiatry

CONNECTICUT

Greenwich Hospital, Greenwich Wendy Hurwitz, internal medicine David Marks, internal medicine H. Michael Morris, medicine

Hospital of St. Raphael, New Haven Don Chin, transitional John Mott, transitional

Triet Nguyen, medicine

Andrew Walker, transitional

Norwalk Hospital, Norwalk Steven Sferlazza, diagnostic radiology

University of Connecticut School of Medicine, Farmington

Viviann Mattson, pediatrics

Yale-New Haven Hospital, New Haven

Don Chin, diagnostic radiology Chieh-Min Fan, internal medicine Craig Fleishman, pediatrics Anita Goodrich, medicine Jennifer Hirsh, medicine, anesthesiology Elan Louis, medicine Triet Nguyen, oplitlialmology Marjorie Scharoun, pediatrics Virginia Sink, medicine Jodi Spector, internal medicine

FLORIDA

University of South Florida Leslie Sims, oplitlialmology

ILLINOIS

McGaw Medical Center-Northwestern U., Chicago Melissa Myers, diagnostic radiology

University of Chicago Medical Center, Chicago Melissa Myers, pediatrics

IOWA

University of Iowa Hospital/Clinic, Iowa City Susan Bonar, orthopedic surgery

MARYLAND

Johns Hopkins Hospital, Baltimore Thelma Asare, obstetrics and gynecology David Cromwell, internal medicine

MASSACHUSETTS

Baystate Medical Center, Springfield Maura Brennan, internal medicine

Beth Israel Hospital, Boston Adam Greene, internal medicine Raphael Ortiz-Colberg, surgery

Boston City Hospital, Boston Eddy Anglade, medicine

Brigham and Women's Hospital, Boston Amy Kindrick, internal medicine Lewis Lipsey, internal medicine Jay Schneider, internal medicine Andrew Walker, diagnostic radiology

Children's Hospital, Boston Wendy Rivers, pediatrics

Harvard Combined Orthopedics Program, Boston Roger Widmann, orthopedic surgery

Massachusetts Eve and Ear Hospital, Boston Eddy Anglade, oplitlialmology Carlos Garcia, otolaryngology

Massachusetts General Hospital, Boston W. Spencer Curtis, anesthesiology Howard Kesselman, internal medicine

^{*} Placements denoted as "medicine" are for one year; those marked as "internal medicine" are three-year assignments.



Thelma Asare won a residency placement in obstetrics and gynecology at the Johns Hopkins Hospital.

Photographs by Harry Bishop

MICHIGAN

St. Joseph Mercy Hospital, Ann Arbor Susan Garetz, surgery

University of Michigan, Ann Arbor Susan Garetz, otolaryngology Zachary Klett, ophthalmology

MINNESOTA

Hennepin County Medical Center, Minneapolis Lisa Ragen, emergency medicine

Mayo Graduate School of Medicine, Rochester Anne Roberts-Hobbie, *internal medicine*

MISSOURI

Barnes Hospital, St. Louis Kee Chung, *internal medicine*

NEW YORK

Albany Medical Center Hospital, Albany John Whalen, orthopedic surgery

Columbia University Hospital, New York City Elan Louis, neurology

Cornell University Medical Center, New York City Katherine Albert, Neurology

Cornell Cooperating Hospitals, New York City Alexander Vukasin, *urology*

Hospital for Special Surgery, New York City Robert Adelman, orthopedic surgery

Lenox Hill Hospital, New York City Katherine Albert, medicine

Long Island College Hospital, Brooklyn Zachary Klett, *medicine*

Manhattan Eye, Ear and Throat Hospital, New York City H. Michael Morris, *ophthalmology*

Mount Sinai Hospital, New York City Robert Adelman, surgery Stephen Bharucha, internal medicine Craig Hecht, surgery, otolaryngology Lawrence Kleinberg, medicine Gregory Koshkarian, internal medicine

New York Hospital-Cornell Medical Center, White Plains Marcia Delman, *psychiatry*

YALE MEDICINE Summer 1989

Presbyterian Hospital, New York City

David Avigan, *internal medicine* Cherise Dyal, *orthopedic surgery* Manuela Orjuela, *pediatrics*

St. Vincent's Hospital, New York City Leslie Sims, transitional

Strong Memorial Hospital, Rochester Eve Colson, pediatrics

Vishesh Kapur, internal medicine Jeffrey Stein, medicine, pediatrics

The New York Hospital, New York City

Amy Lewis, *internal medicine* Robert Spiera, *internal medicine* Alexander Vukasin, *surgery*

NORTH CAROLINA

Duke University Medical Center, Durham

Ira Cheifetz, *pediatrics* Marc Levesque, *internal medicine*

OREGON

Oregon Health Sciences University, Portland

Yvonne Frei, obstetrics and gynecology

PENNSYLVANIA

Abington Memorial Hospital, Abington

Michael Hunter, medicine

Hospital of the University of Pennsylvania, Philadelphia

Alexandra Flather-Morgan, *internal medicine* Michael Hunter, *radiation oncology*

Jefferson University-Wills Eye Hospital, Philadelphia

Susan Carter, ophthalmology

Mercy Hospital, Pittsburgh

Dina Eisinger, transitional

University Health Center of Pittsburgh, Pittsburgh

Robert Levin, psychiatry

RHODE ISLAND

Brown University Memorial Hospital, Pawtucket

Howard Morningstar, family practice

SOUTH DAKOTA

McKennan Hospital-University of South Dakota, Sioux

Lee Beckwith, transitional

TENNESSEE

Vanderbilt University Hospital, Nashville

Kraig Humbaugh, pediatrics

VIRGINIA

University of Virginia, Charlottesville

Stephen Smith, internal medicine

U.S. Naval Hospital, Portsmouth

John Thompson, transitional



Having survived commencement, Robert Adelman takes on the rigors of an orthopedic surgery residency at the Hospital for Special Surgery in New York City.

WASHINGTON

University of Washington Affiliated Hospitals, Seattle

W. Spencer Curtis, medicine

Virginia Mason Hospital, Seattle

Carlos Garcia, surgery

GALLERY

Portrait of a Man Protected Against Cholera

The fear of and anxiety about a disease, the cause and method of transmission of which are unknown, is exemplified by this satirical portrait of a man protecting himself from cholera. It was issued in 1831 by a Munich newspaper, *Der Deutsche Horizont*, as the great cholera pandemic spread from Russia into Germany. Preventive measures are outlined in the text of the print, providing a catalogue to the encumbered figure.

The body is covered with rubber, plaster and flannel. A copper plate and a bag of warm sand hang over the heart. Garments soaked in lime chloride, a warm brick, and an oil cloth coat further protect the body. Two jugs of water are tied to the legs. A paste mask covers the face. Camphor-soaked cotton protrudes from the ears. A vial of vinegar is suspended under the nose. A branch of acorus is clenched between the teeth. A bowl of barley broth covers the head. Tea, coriander and sage are stuffed into the pockets. Juniper and acacia trees are carried in the hands. A cart, attached at the waist, provides additional space for a vapor bath, flannel, fur robes, friction brushes and a chamber pot.

The text concludes, "By exactly following these directions, you may be certain that the Cholera—will attack you first." Copies of this print and variations on the choleraphobe spread westward with the disease across Europe. An English version appeared in 1832 as cholera crossed the Channel.

-Susan Wheeler



Portrait eines cholera profervativ Mannes.

YALE MEDICAL HISTORICAL LIBRARY

YALE MEDICINE Summer 1989

YALE M.D. THESIS CELEBRATES 150 YEARS



Five fourth-year students offered oral presentations as Student Research Day commemorated the 150th anniversary of the M.D. thesis: (from left) Alex Vukasin, Hal Barron, Joni Hansson, Andrew Walker and James Ford.

Photographs by Harry Bishop

When 49 fourth-year Yale medical students presented results of independent vesearch projects May 9 at Student Research Day, they kept a long tradition. This year marked the 150th anniversary of the M.D. thesis, a hallmark of the Yale System, and the longest standing vequirement of its kind among the nation's 127 medical schools.

The following includes an excerpt from the opening remarks of Dr. John N. Forrest Jr., director of student vesearch, and abstracts of the award-winning theses of five students, who made oval presentations.

Opening Remarks

On this day, the Yale University School of Medicine celebrates 150 years of a tradition unique in American medicine—the Yale M.D. thesis requirement. The heart of our celebration of this special occasion is 44 scientific poster presentations and five prize-winning theses. The creativity

and diversity of these scholarly contributions to the biological sciences, carried out by our students with the support of the faculty, explains why this tradition has continued for 150 years and why it is a hallmark of the Yale System of medical education. Required medical student research was first documented in the 1839 catalogue, that states "the candidate for the M.D. degree must present a dissertation on some subject connected with medical sciences."

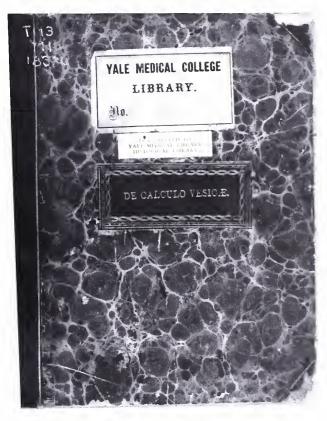
What were the thesis topics 150 years ago? David Fischer Atwater wrote on syphilis, Horace Starr Benedict wrote on dyspepsea, Ely Whitney Blake wrote on amaurosis, Philo Curtis wrote on intermittent fever and another student wrote on the injurious effects of the stimulating diet. There were 15 students in the class, medical school was two years, they turned in their thesis by January, all were handwritten—and at least one was late!

Over the span of these years, there have been approximately 6,380 M.D. theses written by Yale medical

students. We know from a recent survey done by our office that approximately 80 percent of recent alumni have conducted further research since medical school and 30 percent are full-time faculty members at medical schools.

But the preeminent value of the thesis is to teach that all physicians are scientists. Experience in science as a medical student is not just a pathway into research careers, but is an important preparation for physicians regardless of specialty and the nature of their practice. How a physician uses a concept, a therapy or a procedure to benefit or harm his patients is closely linked to what questions he asks of himself when he reads the medical literature.

The M.D. thesis at this University is celebrated in its 150th year because it teaches a student how to understand the scientific method from the inside, how to collect and evaluate data and communicate the knowledge to others, and how to think scientifically and critically for the rest of his/her professional life.



The first bound Yale M.D. thesis on record translates as "Concerning Bladder Stones," and was submitted in 1837 by Edwin A. Anderson of Wilmington, N.C. Dr. Anderson became a surgeon, served as a Confederate Army physician, and, in 1870, became president of the North Carolina Medical Society.

Abstracts

A1 adenosine and somatostatin receptors inhibit chloride transport in the shark rectal gland: dissociation of inhibition of chloride secretion and cyclic AMP accumulation. Faculty advisor: Dr. John N. Forrest Jr.

Harold Vincent Barron

The rectal gland of the dogfish shark *Squalus acanthias* is composed of epithelial tubules that secrete chloride when intracellular levels of cyclic adenosine monophosphate (cAMP) are elevated. Dibutyryl cyclic AMP (dcAMP), forskolin, and A2 adenosine receptors have all been shown to increase secretion by acting as an analog to cAMP, and by receptor activation of a guanine nucleotide regulatory protein Gs. The rectal gland has also been shown to have an inhibitory A1 adenosine receptor that inhibits chloride secretion. The mechanism of signal transduction is unknown.

The somatostatin receptor has been shown to exist in the rectal gland of the dogfish shark. The mechanism of signal transduction for somatostatin is also unclear. The purpose of this thesis is to determine if the inhibitory adenosine and somatostatin receptors are linked to the inhibition of cyclic AMP accumulation in the rectal gland.

The isolated rectal gland of Squalus acanthias was perfused in vitro. Perfusion with forskolin 1.0 µM resulted in a 12-fold increase in chloride secretion. When either 2-Chloroadenosine 0.1 µM was added to the perfusate in the prescence of forskolin, secretion was completely inhibited to basal levels. Simultaneous measurements of tissue cAMP accumulation and chloride secretion demonstrated that forskolin increased basal cAMP levels 45-fold as chloride secretion increased 12-fold. 2Cl Ado partially inhibited forskolin-stimulated cAMP accumulation by 34 to 40 percent; however, tissue cAMP content remained 27- to 35-fold greater than basal values despite complete inhibition of forskolinstimulated chloride transport. Somatostatin also completely inhibited forskolin-stimulated chloride secretion but, in contrast to 2Cl Ado, it potently inhibited cAMP accumulation by 86 to 88 percent. cAMP levels, however, did rise sevenfold compared to the unstimulated basal state.

These data demonstrate that both 2Cl Ado and somatostatin inhibit forskolin-stimulated chloride secretion and both inhibit cAMP production. Further, both agents inhibit secretion to basal levels while allowing intracellular levels of cAMP to rise to between seven- and 35-fold. To explain this, one must hypothesize that both 2Cl Ado and somatostatin act via both a cyclic AMP dependent and cAMP independent mechanism.

Identification and characterization of a novel class of pharmacologic agents for the reversal of multidrug resistance. Faculty advisor: William N. Hait, M.D., Ph.D., associate professor of medicine, pharmacology and in the Cancer Center.

James M. Ford

Phenothiazines and structurally related compounds inhibit cellular proliferation and sensitize multidrug resistant (MDR) cells to chemotherapeutic agents. To identify more potent pharmaceuticals, the structure-activity relationships of a series of phenothiazines and related compounds were studied in MDR MCF-7/DOX human breast cancer cells. Substitutions on the phenothiazine ring that increased hydrophobicity increased antiproliferative and anti-MDR activities.

For example, -C1 and -CF3 groups increased whereas -OH

groups decreased potency. Modifying the length of the alkyl bridge (4C>3 or 2) and the type of amino side chain (piperazinyl>non-cyclic) also influenced potency. Compounds with tertiary amines were better anti-MDR agents than those with secondary or primary amines, but were equipotent antiproliferative agents.

The effects of these substituents were unrelated to hydrophobicity. The structure-activity relationships suggest that an ideal structure for reversing MDR by phenothiazines has a hydrophobic nucleus with a -CF3 ring substitution at position two, connected by a four-carbon alkyl bridge to a para-methyl substituted piperazinyl amine. Related compounds having certain of these properties were studied and the thioxanthene class of antipsychotics were identified as having increased activity and potency as chemosensitizers.

For example, *trans*-flupenthixol, the most effective of these compounds, decreased doxorubicin, vinblastine and colchicine resistance, respectively, by 15-, 36-, and eight-fold in MCF7/DOX cells; by 34-, 40-, and 20-fold in the MDR human carcinoma line KB-V1; and by seven-fold (doxorubicin) and four-fold (vinblastine) in the murine leukemia line P388/Dox. *Trans*-flupenthixol fully reversed 20-fold doxorubicin and 100-fold colchicine resistance in an NIH 3T3 fibroblast line transfected with an expression vector containing the MDRI gene.

Equimolar concentrations of *trans*-flupenthixol caused 1.5- to two-fold greater antagonism of MDR than its steroisomer *cis*-flupenthixol, one- to three-fold greater than the calcium channel blocker verapamil, and two- to 12-fold greater than the phenothiazine homolog fluphenazine. *Trans*-flupenthixol was not accumulated more than *cis*-flupenthixol in MDR cells. Both drugs caused increased accumulation of doxorubicin in MDR cells, but not in sensitive cells. The cisand trans-steroisomers were equally active antagonists of protein kinase C and calmodulin. This thesis shows that *trans*-flupenthixol, a drug that lacks extrapyramidal side effects in humans, is a potent, sterospecific antagonist of MDR in cells that overexpress P-gp.

Analysis of murine polyclonal and monoclonal anti-Ro/SSA antibodies. Faculty advisor: Dr. John A. Hardin, professor of medicine.

Joni H. Spector

Anti-Ro/SSA autoantibodies are a dominant feature of the autoimmune response in SLE and Sjogren's syndrome. The cellular location of the Ro/SSA particle is still in question and its biological function in unknown. To investigate the Ro/SSA particle, murine anti-Ro/SSA monoclonal antibodies (mAbs) were developed.

Four strains of mice were immunized with affinity-purified bovine Ro/SSA. The anti-Ro/SSA response was examined by immunoblots, ELISA, and immunoprecipitation of 32p-labelled cell extracts. The polyclonal anti-Ro/SSA response differed among strains, suggesting an MHC association in the expression of anti-Ro/SSA antibodies. All sera-bound bovine Ro/SSA in immunoblots and were inhibitable by greater than 70 percent in ELISA by preincubation with purified Ro/SSA. The Ro/SSA RNAs were immunoprecipitated from murine Ehrlich ascites cell extracts by these sera, demonstrating that true autoantibodies were induced in the mouse.

Six monoclonal anti-Ro/SSA antibodies (4 lgM and 2 lgG) were derived using hybridoma technology. All bound bovine Ro/SSA strongly in ELISA, and five were inhibited by greater than 70 percent when preincubated with purified Ro/SSA



Kraig Humbaugh expounds on a chart to Drs. John N. Forrest Jr., director of student research, and Emile Boulpaep, professor of cellular and molecular physiology.



Dr. Lee Farr, '32, HS '33-34, asks a point of clarification from Jane Rasmussen. Dr. Farr endowed the annual lecture that takes place at Student Research Day.



Jackie Pachon's poster engages the attention of Dr. Cyrus R. Kapadia, associate professor of medicine.

protein. Two mAbs recognized the 60 kDa Ro/SSA protein in immunoblots, but failed to immunoprecipitate Ro/SSA RNAs from cell extracts. Indirect immunofluorescence (IIF) demonstrated fibrillar cytoplasmic staining consistent with the pattern previously reported for the distribution of the Ro/SSA antigen. This pattern of cytoplasmic fluorescence was completely inhibited by preincubation of the mAbs with Ro/SSA protein. However, preincubation of these antibodies with tubulin also strongly inhibited their ability to bind Ro/SSA in ELISA, and partially inhibited the fibrillar staining pattern noted in IIF.

These data suggest that the fibrillar cytoplasmic staining pattern noted with anti-Ro/SSA mAbs reflects their ability to bind conformational epitopes, such as those which might be constituted by repeating residues found within alpha-helical structures, now recognized on Ro/SSA as well as tubulin. However, the cellular distribution of the Ro/SSA particle remains unclear.

Peptide YY and enteroglucagon release in the isolated perfused rabbit colon and following colonic resection in rats. Faculty advisor: Dr. Irwin M. Modlin, professor of surgery.

Alexander P. Vukasin

The colon is an endocrine organ which can influence upper GI function by means of two bioactive peptides, peptide YY (PYY) and enteroglucagon, which are produced within mucosal endocrine cells. PYY delays upper GI motility and enteroglucagon promotes small bowel mucosal growth.

We studied release of PYY and enteroglucagon in two models: I. Isolated perfused rabbit left colon and II. Rats following colonic resections. Previous studies in whole animal models showed that PYY and enteroglucagon were released following intraluminal infusion of the colon with oleic acid suspended in bile salt.

I. Consequently, we studied the release of peptides in response to intraluminal oleic acid and deoxycholate in the isolated colon. We found that intraluminal oleic acid released enteroglucagon and intraluminal deoxycholate, a bile salt, released PYY. Tetrodotoxin, a non-specific neuronal blocker, was used to block the intrinsic colonic nervous system. Tetrodotoxin did not attenuate the release of PYY following intraluminal deoxycholate stimulation, which suggests that PYY release is independent of the intrinsic nervous system.

II. The changes in circulating PYY and enteroglucagon following large bowel resection were studied in rats. Plasma levels of PYY were significantly elevated in rats following subtotal colectomy compared to partially resected rats and nonsurgical controls. The rectal tissue levels of both PYY and enteroglucagon were also significantly elevated following subtotal colectomy, indicating hypertrophy or hyperplasia of the endocrine cells. The small bowel transit of an oral radioactive marker was unchanged following subtotal colectomy.

Thus, PYY is released from the colonic mucosa in response to intraluminal deoxycholate, by a mechanism independent of the intrinsic nervous system of the colon. Alterations of the bile salts in the enteric contents arriving at the rectum may account for the release of PYY following total colectomy. The ability to generate these elevated levels of circulating PYY may be attributed, in part, to hyperplasia or hypertrophy of remaining endocrine cells in the rectal mucosa.

Elevated levels of PYY may contribute to recovery from colectomy, possibly by returning small bowel transit to normal. These results support the concept that the colon participates in regulation of upper gastrointestinal function, by monitoring enteric contents and releasing bioactive peptides into circulation.

25-Hydroxyvitamin D-1 α -Hydroxylase stimulation by synthetic parathyroid hormone-like peptide associated with humoral hypercalcemia of malignancy. Faculty advisor: Dr. Thomas O. Carpenter, assistant professor of pediatrics.

Andrew T. Walker

The role of vitamin D metabolism in the Humoral Hypercalcemia of Malignancy Syndrome (HHM) is unclear. In order to investigate the influence of tumor factors on the vitamin D system, we studied effects of a synthetic parathyroid hormone-like peptide [PTH-LP(1-36)], derived from an HHM-associated tumor, on renal 25-OHD-1α-hydroxylase (1α-OHlase) activity. Using renal homogenates from animals infused with peptide or renal slices incubated with peptide *in vitro*, we studied 1) the time course of peptide effect; 2) the dosage effect; 3) the effect of the longer synthetic fragment, PTH-LP(1-74), compared to PTH-LP(1-36); and 4) the acute effect of peptide *in vitro*. bPTH(1-34) was used as a positive control in all experiments.

Infusion of mice with PTH-LP(1-36) for 12 and 24 hours showed stimulation over control enzyme activity (435±72 percent and 941±120 percent, respectively). Thirty-six-hour infusion demonstrated diminution of activity to levels near the unstimulated state (209±31 percent). Renal homogenate 1α-OHlase activity from mice infused with PTH-LP(1-36) at dosages of 2.5, 10 and 30 pmol/hour for 24 hours (1.41 ± 0.09) , 9.48 ± 1.20 , and 18.38 ± 0.68 ng/mg protein/20 minutes, respectively) was significantly greater than control activity (1.01±0.09ng/mg protein/20 minutes). This stimulation by PTH-LP(1-36) was comparable to bPTH(1-34) at 2.5 pmol/hour (1.41±0.09 versus 1.15±0.09ng/mg protein/20 minutes) and 10 pmol/hour (9.48±1.20 versus 7.93±0.48ng/mg protein/20 minutes), and was slightly greater than bPTH(1-34) (18.38 \pm 0.68 versus 15.04 \pm 1.36ng/mg protein/20 minutes) at 30 pmol/hour. Stimulation over control enzyme activity by PTH-LP(1-74) infusion (617±29 percent) was not significantly different than bPTH(1-34) or PTH-LP(1-36) (787±48 percent and 941±120 percent, respectively). PTH-LP(1-36) maximally stimulated renal slice 1α-OHlase in vitro at 10-11M, and was not significantly different in potency from bPTH.

These results indicate that PTH-LP fragments: 1) stimulate renal 1α -OHlase *in vivo*; 2) have time-limited effects on this system, 3) PTH-LP(1-36) and PTH-LP(1-74) are comparable in potency to bPTH(1-34) in stimulating 1α -OHlase; and 4) PTH-LP(1-36) acutely stimulates 1α -OHlase *in vitro*.

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SCOPE



Architect's rendering of an expanded Yale-New Haven Hospital.

YNHH Plans \$160 Million Construction/Renovation

Detailed program and architectural planning for a major construction/ renovation project has gotten the goahead from the Yale-New Haven Hospital Board of Trustees. The \$160 million project will include a new 10-story patient care building.

The project will modernize the hospital's 520-bed Memorial Unit, which opened in 1953, by converting existing three- and four-bed patient rooms to single and double rooms and by adding other features required for modern services. Plans call for a new children's hospital at Howard Avenue and Park Street, the current site of the School of Nursing. Possible new locations for the nursing school are under study by the University.

Lyme Disease Symposium On Diagnosis, Treatment

On June 7, the School of Medicine sponsored the second annual conference on Lyme disease to review current understanding of the tick-borne infection. The day-long symposium centered on clinical problems in diagnosing and treating Lyme disease, as well as veterinary aspects of the disease. Yale physicians first identified Lyme disease in 1975. They named it for the Connecticut town in which lived the first patients who were diagnosed with the disease's symptoms of skin lesions and inflamed joints. The disease is transmitted by the bite of a tick known as Ixodes danımini.

"During the past three years, we have learned considerably more about Lyme disease, but there still are some unanswered questions," says Dr. John A. Hardin, professor of medicine and head of the internal medicine department's rheumatology section. "For instance, we need better information about which patients should be treated with antibiotics and for how long this treatment should be continued." At the conference, Dr. Hardin discussed serologic testing in Lyme disease.

Several additional School of Medicine faculty made presentations:

- Stephen W. Barthold, D.V.M., associate professor of comparative medicine, discussed animal models of Lyme disease, specifically how he and colleagues are reproducing the disease in mice to study how to interrupt the disease process.
- Dr. Fred S. Kantor, the Paul B. Beeson Professor of Medicine, outlined current research and

prospects for a Lyme disease vaccine.

- Dr. Daniel W. Rahn, assistant professor of medicine and director of the Lyme disease program at Yale, described early clinical features of Lyme disease, including a skin rash that looks like a red ring. This diagnostic mark follows a tick bite and signals the onset of the disease.
- Dr. Robert T. Schoen, assistant clinical professor of medicine and codirector of the Lyme disease program, focused on how the disease affects people's joints, triggering what is called Lyme arthritis.
- Dr. David Trock, a fellow in rheumatology, talked about Lyme disease and pregnancy. Evidence shows that the disease-producing spirochete can cross a woman's placenta and harm her fetus. However, physicians say that they do not know the risk of this occurring.

Workshop at Yale Updates Gene Map

Approximately 700 of the world's leading geneticists gathered at the University during the week of June 11 to fit together more pieces in the complex jigsaw puzzle known as the human genome. Using the latest computer technology, leaders of the 10th International Workshop on Human Gene Mapping tabulated extensive new data concerning the position of human genes on chromosomes. Thus far, the positions of about 1,700 of the estimated 100,000 human genes have been verified. The amount of data concerning the genome has doubled every three years in the decade-and-ahalf since mapping began.

The workshop was hosted by Frank H. Ruddle, Ph.D., the Sterling Professor of Biology and Human Genetics, and Kenneth K. Kidd, Ph.D., professor of human genetics, biology and psychiatry. Professor Ruddle organized the first such international workshop at Yale in 1973. Since then, the meetings have been held every other year at different locations around the world.

The U.S. government has committed \$200 million a year for the next 15 years to map the structure of human genes, an effort that already has helped physicians better understand such inherited diseases as Duchenne's

muscular dystrophy, cystic fibrosis and some forms of cancer. (See "Clinical Genetics at Yale: The Future is Now," YALE MEDICINE, Spring 1989.)

MacArthur Foundation Funds Behavior Study

The University has received a five-year grant totaling \$7.3 million from the John D. and Catherine T. MacArthur Foundation to continue the Mental Health Research Network on Determinants and Consequences of Health-Promoting and Health-Damaging Behavior.

In 1983, Judith Rodin, Ph.D., the Philip R. Allen Professor of Psychology and professor of medicine and psychiatry, was appointed the network's chairman. She has raised \$5 million to support research into the effects of repeatedly gaining and losing weight on hypertension, coronary heart disease and diabetes. Network investigators also have explored the role of psychological stress in myocardial ischemia, common processes in substance use and abuse, and the role of gender in the impact of work environments on health.

The network is designed to promote cooperation among leading research groups working on similar questions and includes Duke University Medical

Center, Sweden's Karolinska School of Medicine and the University of Pennsylvania School of Medicine.

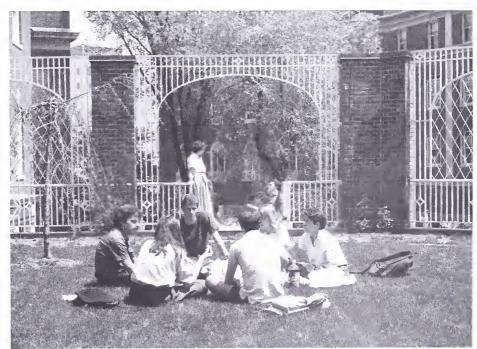
Study Confirms Aspirin's Tie to Reye's Syndrome

A study led by Dr. Brian W. Forsyth, assistant professor of pediatrics and in the Child Study Center, confirms the link between aspirin use and the potentially fatal Reye's syndrome. Dr. Forsyth and colleagues undertook the study to answer lingering questions about potential bias in earlier studies suggesting the association between aspirin use during a viral illness in children and adolescents and the subsequent onset of Reye's.

Involving 24 case subjects and 48 matched controls, the new study found that 88 percent of the cases but only 17 percent of the controls received aspirin prior to the onset of Reye's. Those with the syndrome were 35 times more likely to have used aspirin.

CMM, YPI Architects Win Coveted Awards

Architects of two School of Medicine buildings now under construction have won prestigious life achievement



Park benches, flower beds and newly planted trees are drawing increasing numbers of visitors to a renovated Sterling Hall of Medicine (SHM) courtyard. Its three terraces and child play area are accessible from the E-level of SHM's I-wing, from the basement of the B-wing and from the Harkness Auditorium lobby.

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awards. Cesar Pelli & Associates, architect of the Center for Molecular Medicine (CMM), has won the 1989 Architectural Firm Award. The honor is given by the American Institute of Architects (AIA). Frank O. Gehry, who designed the Yale Psychiatric Institute (YPI), was named 1989 laureate of the Pritzker Architecture Prize, an international award presented by the Hyatt Foundation of Los Angeles.

Located in New Haven, Mr. Pelli's firm has designed some of America's landmark contemporary buildings, including New York's Museum of Modern Art, Madison Square Garden and the Carnegie Hall Tower. Mr. Gehry, based in Santa Monica, Calif., has designed a wide range of buildings, from residences to concert halls. Among his many honors, he has received more than 25 national and regional AIA awards.

New Minority Affairs Program Planned at YSM

The School of Medicine will establish a new Office for Minority Affairs to focus on academic issues of minorities, Dean Leon E. Rosenberg has announced.

The need to provide academic and social support for all minority students who seek it and to assist in recruiting minority students has prompted the School of Medicine to create this new office, according to the dean. In addition, the medical school wants to stimulate and coordinate the involvement of minority and other students in activities of the broader New Haven community, particularly in high schools.

"During recent years, black and Hispanic medical students at Yale, as well as their counterparts at many other predominantly non-minority institutions across the country, have expressed several concerns," Dr. Rosenberg observes. "A deep sense of isolation and alienation is felt by many minority students and faculty, as well as the minority community outside the university.

"We hope that this new program will address several goals," Dr. Rosenberg says. Specifically, the director of the new office will help recruit disadvantaged minorities to the student body and the faculty; develop support systems for minority students and faculty; increase the school's awareness

of and sensitivity to minority needs in medical education and practice; and implement outreach programs to assist the city of New Haven meet its educational and health care goals for minorities in need.

To recruit the office's director, Dr. Rosenberg has appointed a sevenmember committee and invited suggestions from the medical school community.

Committee members include: Robert H. Gifford, M.D., associate dean for education and student affairs, chairman; James P. Comer, M.D., M.P.H., the Maurice Falk Professor in the Child Study Center and psychiatry; Myron Genel, M.D., associate dean for government and community affairs; Joy Hirsch, Ph.D., associate professor of ophthalmology and visual science; Asghar Rastagar, M.D., professor of medicine; Merle Waxman, M.A., director, Office for Women in Medicine: and Ellis L. Webster, a second-year medical student from Anguilla, West Indies.

MCAT To Emphasize Communication Skills

Marked changes will be evident in the 1991 Medical College Admission Test (MCAT), the Association of American Medical Colleges (AAMC) has announced. The current test was adopted in 1977.

A streamlined MCAT will replace six test sections (biology, chemistry, physics, science problems, reading skills analysis and quantitative skills analysis) with four (biological sciences, physical sciences, verbal reasoning and a writing sample) and will cut at least 80 minutes from the current test day of 9 1/2 hours. It will be the first professional school admission test to use essays and score them to evaluate applicants' writing skills.

The changes are meant to enhance the predictive value of MCAT and encourage students who are interested in medicine to pursue broad undergraduate study in the natural and social sciences and the humanities.

"The new test signals the importance of critical thinking, logical reasoning, problem-solving and communication skills to medical education and medical practice," explains Dr. Robert G. Petersdorf, '52, AAMC president.

According to Dr. Thomas L. Lentz, assistant dean for admissions and

professor of cell biology, the new test offers several advantages over the old. There will be less emphasis on recall of facts and more on reasoning and problem solving. The new essay will allow evaluation of writing skills and of the ability to communicate.

"The new test should better evaluate skills important in a physician and encourage a broader selection of majors, including humanities, by undergraduate students," he adds.

Med School Scarf Makes Debut



The Yale Co-op has added to its emblematic offerings a stylish, 28-inch-square silk scarf bearing the School of Medicine's coat of arms. It sells at both the main store and medical branch.

"We hope that women in the School of Medicine will enjoy wearing this attractive scarf as much as we did working on the project," comments Helaine Patterson, director of medical public information, who with Leah D'Eugenio, staff assistant, spearheaded the drive to develop the scarf.

FACULTY NEWS

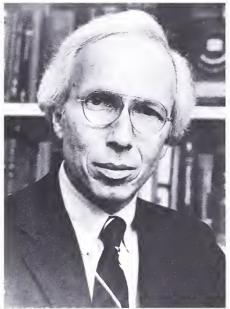
Sidney J. Blatt, Ph.D., professor of psychiatry and psychology, was awarded the Bruno Klopfer Prize for distinguished contributions to the field of personality assessment at the 50th anniversary meetings of the Society for Personality Assessment in New York. Dr. Blatt is on academic leave at the Hebrew University of Jerusalem where he is the Sigmund Freud Professor of Psychoanalysis, the Ayala and Sam Zacks Professor of Art History, and a Fulbright Senior Research Fellow.

Dr. James L. Boyer, professor of medicine, director of the Liver Research Center and chief of the digestive diseases division, was awarded the Distinguished Achievement Award from the American Gastroenterological Association for his work on mechanisms of bile flow. Dr. Boyer's studies concentrate on elucidating the basic physiologic mechanisms by which the liver transports and excretes bile acids and forms bile.

Dr. Roberto A. Calle, research scientist in medicine, has been awarded a \$119,924 grant from the Robert Wood Johnson Foundation. The grant, given under the foundation's Minority Medical Faculty Development Program, will enable Dr. Calle to study the role of protein kinase C in insulin secretion.

Miguel Coca-Prados, Ph.D., research scientist in the department of ophthalmology and visual science, reeeived the 1989 Alcon Research Institute's Award for outstanding contribution to the field of vision research. He will use the \$50,000 award for research to develop and characterize cultured ciliary epithelium tissues. These tissues secrete nutritive fluids in the eye and generate eye pressure.

On Mareh 11, more than 100 friends and colleagues gathered to honor **Dr. Lawrence S. Cohen**, the Ebenezer K.
Hunt Professor of Medicine, at the new Volunteer Center of the American Heart Association Connecticut Affiliate, Inc. Capital Campaign Major Gifts General Chairman A. Searle Field announced the Lawrence S. Cohen, M.D. Honorary Fund, established to support the association's research and education efforts



Dr. Lawrence S. Cohen

Dr. Cohen, a past president of the Connecticut affiliate, is a member of the American Heart Association's Council on Clinical Cardiology and the Scientific Sessions Committee. He also serves as the association's capital campaign chairman and chairs the Clinical Trials Review Committee for the National Heart, Lung and Blood Institute.

Dr. Arthur B. DuBois, professor of epidemiology and physiology, was awarded the 1989 Edward Livingston Trudeau Medal from the American Lung Association. The medal was presented in Cincinnati in conjunction with the Amberson Lecture in a special plenary session.

The Trudeau medal is awarded for excellence in research and teaching regarding the control, prevention and treatment of lung disease.

Marilyn G. Farquhar, Ph.D., Sterling Professor of Cell Biology and Pathology, received the 1988 Homer Smith Award in recognition of her outstanding accomplishments in nephrology research. The award was presented jointly by the American Society of Nephrology and the New York Heart Association. Professor Farquhar's research includes characterization of polyanionic molecules in the glomerular basement membrane haparin sulfate proteoplycans; identification and characterization of epithelial polyanion or podocalyzin; identification of molecules and early events involved in immune complex formation; and identification of key factors in the

pathogeneisis of membranous nephropathy.

Dr. Paul McCarthy, professor of pediatrics, has been elected president of the Ambulatory Pediatric Association, a nationwide organization addressing research, education and public policy issues.

Ira S. Mellman, Ph.D., associate professor of cell biology, has received the Yale Science and Engineering Association award for the advancement of basic and applied science. The award carries an honorarium of \$1,000. Recently, Professor Mellman and his colleagues developed a diagnostic tool that may be used to detect an important class of viruses responsible for causing several types of encephalitis.

Dr. George E. Palade, Sterling Professor Emeritus of Cell Biology, was invited to lecture at the German Pathological Society in West Berlin, commemorating the first electron microscopes by Ernst Ruska. Dr. Palade also lectured in Madrid, Spain, to high school seniors and university freshman, in an effort to stimulate career interest in science.

Dr. Joel M. Rappeport, professor of medicine and director of the bone marrow transplantation program, was elected president of the Aplastic Anemia Foundation of America, New England Region. The non-profit foundation encourages research into the causes and alternative treatments of this rare and critical blood disease.

Dr. Morton F. Reiser, Albert E. Kent Professor of Psychiatry, has been selected by his alma mater, the University of Cincinnati College of Medicine, to receive the 1989 Daniel Drake Medal. The award is given to alumni and former or current faculty for outstanding achievement in biomedical research.

Dr. Leon E. Rosenberg, dean of the School of Medicine, returned to his alma mater, the University of Wisconsin Medical School, to address the Class of 1989 at its Recognition Ceremony on May 20. His address was entitled "To Life."

Dr. Harvey L. Ruben, associate clinical professor in psychiatry, received the 1989 Robert L. Robinson Award from the American Psychiatric Association for his work on "Talknet," a weekly mental health issue call-in show on NBC Radio Network. The Robinson award is given annually to

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individuals and organizations within the media who have made outstanding contributions to improving public understanding of mental illness and psychiatric treatment. Dr. Ruben also is director of continuing education for the department of psychiatry at Yale. He is a diplomate of the American Board of Psychiatry and Neurology.

Dr. Robert G. Shulman, professor of molecular biophysics and biochemistry, presented the second Hardy lecture for the James D. Hardy Memorial Lectureship Committee on May 11 in the Jane Ellen Hope Building at Yale. The lecture was entitled "Studies of Systemic Physiology in Humans by NMR."

Dr. James P. Comer, the Maurice Falk Professor in the Child Study Center and Psychiatry and associate dean for student affairs, gave the first annual Justine Wise Polier Memorial Lecture on May 24 at Columbia University's Low Memorial Library. Dr. Comer spoke on "Children and Institutions: The Misfits."



James P. Comer, M.D.

Dr. George F. Thornton, clinical professor of medicine and chairman of the department of medicine at Waterbury Hospital, has been appointed to a four-year term as governor of the Connecticut region for the American College of Physicians. The American College of Physicians is the largest international society of internists in the world.

Dr. Howard M. Spiro, professor of medicine, was presented the Distinguished Educator Award by the American Gastroenterological Association for his career in education in gastroenterology. He is the founder and director of the program for humanities in medicine and author of *Doctors, Patients and Placebos*.

Stephen G. Waxman, M.D., Ph.D., professor and chairman of neurology, delivered the third annual dean's lectures in neuroscience on May 18 at Brown University. He described his clinical and basic research on how the nervous system responds to injury. In his first lecture, "Molecular Organization of Myelinated Fibers: Implications for Multiple Sclerosis," he reviewed work on the molecular mechanisms that underlie recovery from blindness, paralysis and sensory loss in multiple sclerosis. In his second lecture, "Membrane Assembly in Myelinated Axons: Modulation by Glial Cells," he described how nerve cells build membranes that are capable of generating electrical impulses so signaling can occur in the brain and spinal cord.

Dr. Leon E. Rosenberg Reappointed YSM Dean

University President Benno C. Schmidt Jr. has reappointed Dr. Leon E. Rosenberg as dean of the School of Medicine. His new five-year term began July 1.

"The School of Medicine has enhanced its excellence under Dean Rosenberg's leadership, and his reappointment signifies my strong support for the directions established during his first term as dean," President Schmidt said in announcing the reappointment. "His second term promises to be equally fruitful, and I look forward with special pleasure to working with him in the years ahead to meet the great promise of the School of Medicine."

During his deanship, the School of Medicine has advanced many aspects of its mission of teaching, research and patient care. For example, a four-year capital campaign raised \$155 million to increase the medical school's endowment, help meet research and program needs, and provide new and renovated facilities.

As part of that campaign, Dean Rosenberg has been instrumental in

developing, in conjunction with the Howard Hughes Medical Institute and the Lucille P. Markey Charitable Trust, the Center for Molecular Medicine (CMM), where basic and clinical researchers will work together to advance biomedical science and improve health.

A major building program has resulted in expanded facilities. The Yale Physicians Building, in which full-time faculty physicians provide specialty, out-patient care, opened in 1988. The Magnetic Resonance Center, a joint project of the School of Medicine and Yale-New Haven Hospital, was completed. Space was renovated for the Yale Eye Center and for research laboratories in such diverse fields as molecular neurobiology, medicine and pediatrics.

The school also participated in a major new endeavor focusing on spinal cord injury research: the PVA/EPVA Center for Neuroscience and Regeneration Research of Yale University, located at the Veterans



Dr. Leon E. Rosenberg

Administration Medical Center in West Haven. Currently, more than \$65 million in new construction is underway, including the CMM, a 66-bed facility for the Yale Psychiatric Institute, and a major addition to the Yale Medical Library.

Dean Rosenberg also has appointed several school-wide task forces to enrich academic life. Among the most important task force recommendations being implemented concern a greater emphasis on teaching and an increase in the number of women at senior faculty rank.

He also has spoken out about the medically underserved poor and about the need to focus on academic issues of minorities. To these ends, Dr. Rosenberg has encouraged medical students, faculty and staff to volunteer in the community, and has directed that the school establish an Office of Minority Affairs.

The 13th dean of the School of Medicine, Dr. Rosenberg has been associated with the University for 24 years, joining the faculty in 1965 as an assistant professor of medicine. He was named professor of human genetics, pediatrics and medicine in 1972, the same year he helped establish the department of human genetics and became its first chairman. In 1980, he was named the C.N.H. Long Professor of Human Genetics.

Dr. Rosenberg was elected to the National Academy of Sciences in 1985. In 1982, the University of Wisconsin School of Medicine presented him its Distinguished Alumni Citation. That year, too, he was elected to the Institute of Medicine of the National Academy of Sciences. Dr. Rosenberg is a fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science. He is a past president of the American Society of Human Genetics.

In New Haven, Dr. Rosenberg serves as a trustee of Yale-New Haven Hospital, Paul Newman's Hole-in-the-Wall Gang Camp for children, and on the board of directors of Science Park Development Corp. After learning of his reappointment, the New Haven Board of Alderman presented Dr. Rosenberg with a citation that bears the board's congratulations and best wishes.

Otolaryngologists Elect Ilsa Schwartz President

llsa R. Schwartz, Ph.D., a neurobiologist and associate professor of surgery (otolaryngology) and neuroanatomy, has been named president-elect of the Association for Research in Otolaryngology (ARO), a 1,000-member international scientific organization representing all areas of otolaryngology and related basic and applied sciences. She will become the 17th president in March 1990.

Dr. Schwartz has studied the anatomical and physiological properties of neurons in both the auditory and vestibular systems. Her research has focused on the structure and chemical properties of auditory neurons in the mammalian brainstem and inner ear.

She has used autoradiographic and immunocytochemical methods at the light and electron microscopic levels to characterize the detailed connections between cells that carry information to and from the ear and to help identify the chemical signals they use.

She holds a Ph.D. degree in molecular biophysics from Yale, and completed a postdoctoral fellowship in anatomy at Albert Einstein College of Medicine. She joined the Yale faculty in 1987. Dr. Schwartz holds memberships in the Society for Neuroscience, Association for Women in Science, and Women in Neuroscience.

Professor Boron To Lead Physiology

Walter F. Boron, M.D., Ph.D., professor of cellular and molecular physiology, has been named chairman of the department which he joined in 1978. Dr. Boron, whose appointment was effective July 1, succeeds Dr. Emile L. Boulpaep, who has returned to full-time research and teaching.

On Dr. Boron's appointment, Dean Leon E. Rosenberg said: "Walter Boron is an acclaimed cellular physiologist and among our most outstanding educators. His leadership will enable our world-class department to continue making major contributions to this field."

Dr. Boron has concentrated his research on the regulation of acid-base balance in cells, specifically, how acids and bases cross cell membranes. These transport processes are important because improper acid-base balance causes abnormalities in such vital cell functions as cell growth. In addition, the processes are essential for the functioning of the kidneys and other organs.

Most recently, Dr. Boron and his colleagues described how growth factors, which bind to cells and trigger cell division, stimulate acid-base transport mechanisms and thereby change acid-base balance in cells.



Walter F. Boron, M.D., Ph.D., has succeeded Dr. Emile L. Boulpaep as chairman of cellular and molecular physiology. Dr. Boron came to Yale in 1978, and was named a full professor in 1987.

Dr. Boron has written extensively on cellular transport and regulation; he also serves as associate editor of the journal *Physiological Reviews* and as an editor of the *Journal of Physiology*. He is a past member of the editorial board of the *American Journal of Physiology*.

Active in several professional organizations, Dr. Boron currently serves as treasurer of the Society of General Physiologists. He is a member of the American Physiological Society, American Society of Nephrology and the Biophysical Society.

In 1986, the American Heart Association and the American Society of Nephrology presented Professor Boron its Young Investigator Award. The National Institutes of Health has presented him a Research Career Development Award and a Research Service Award.

Dr. Boron came to Yale in 1978 as a postdoctoral fellow in physiology, and in 1980 was named assistant professor. In 1987 he was named professor in the department that had been renamed cellular and molecular physiology and also began his service as its director of medical studies.

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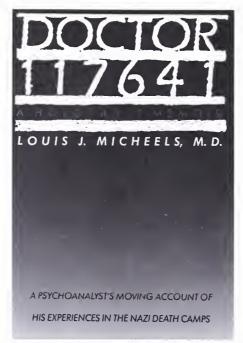
Women Sweep Awards As Exemplary Mentors

Commencement Day 1989 at the School of Medicine saw two physicians and a popular physicist—all women—receive the annual awards for mentorship voted by the graduating class.

- Dr. Mary F. Keohane, associate professor of diagnostic radiology, won the Francis Gilman Blake Award as the faculty member designated by the senior class as the most outstanding teacher of the medical sciences. This is the second time she has received the award
- Dr. Elizabeth M. Gelberg received the Betsy Winters House Staff Award presented to the house staff member who has made the most significant contribution toward the education of medical students.
- Joy Hirsch, Ph.D., associate professor of ophthalmology and visual science, was presented the Leah Lowenstein Award by the Office for Women in Medicine as the medical school faculty member who most clearly provides positive images of women in promoting humane and egalitarian medical education.



Joy Hirsch, Ph.D., 1989 Leah Lowenstein Award winner.



Dr. Louis J. Micheels, HS '50-'53, author of the above book, is at work on an article for a future issue of YALE MEDICINE.

NEW BOOKS

Harry Stack Sullivan's Concepts of Personality Development and Psychiatric Illness, by Dr. Arthur H. Chapman, '47, and Miriam C.M.S. Chapman, Bunner/Mazel, (New York) 1980.

Plagues & Poxes: The Rise and Fall of Epidemic Disease, by Dr. Alfred J. Bollet, clinical professor of medicine, Demos, (New York) 1987.

A Psychiatrist Recollects: Stories from the Lives of Psychiatric Patients, by Dr. Malcolm Baker Bowers Jr., HS '63-'65, professor of psychiatry, Human Sciences Press, Inc., (New York) 1989.

Ethics and Regulation of Clinical Research, by Dr. Robert J. Levine, HS '62-'63, professor of medicine, Yale University Press, (New Haven) 1989.

Doctor #117641: A Holocaust Memoir, by Dr. Louis J. Micheels, HS '50-'53, associate clinical professor of psychiatry, Yale University Press, (New Haven) 1989.

Infectious Disease: A Problem-Oriented Approach (third edition), by Dr. Hugh L. Moffet, '53, J.B. Lippincott, (Philadelphia) 1989.



IN MEMORIAM

Carmen T. Pepe February 4, 1989	ex med '22
James E. Carroll February 14, 1989	ex med '24
David Crocker August 29, 1988	'40 M.D.
David B. Wilson August 9, 1988	'44 M.P.H.
Edward Foord December 14, 1988	'47 M.D.
Victor A. Drill December 4, 1988	'48 M.D.
Emi T. Rausch December 5, 1988	'51 M.P.H.
Neal L. Rosen November 30, 1988	'80 M.D.
Max Carter	HS



January 16, 1989

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DEVELOPMENT REPORT



Dr. Gilbert H. Glaser

\$200,000 Gift Launches Gilbert Glaser Fellowship

An anonymous donor has given \$200,000 to kick off a drive to endow a postdoctoral fellowship in epilepsy in honor of retired faculty member Dr. Gilbert H. Glaser.

Department Chairman Stephen G. Waxman, M.D., Ph.D., has asked faculty member Dr. Peter D. Williamson to direct the drive which has an immediate goal of \$500,000. Already, friends, colleagues, patients and former trainees have donated an additional \$40,000.

Dr. Glaser founded the section of neurology at Yale and steered it through its early days of development into a department. During his 35 years at Yale, he became a major figure in national and international neurology. He has written more than 200 articles and many other published abstracts and chapters.

Dr. Glaser's most outstanding work concerns the causes of and treatment of epilepsy. He has been president of the American Academy of Neurology, the American Epilepsy Society, the Eastern Association of Electroencephalographers and the Connecticut Neurological Society; vice president of the American Neurological Association, chairman of the medical advisory boards of the Myasthenia Gravis Foundation and the Multiple Sclerosis

Society. Dr. Glaser was the editor of *Epilepsia*, the regional editor of the *Journal of the Neurological Sciences* and served on many editorial boards.

Perhaps Dr. Glaser's greatest accomplishment is the substantial impact he has had on the more than 100 neurologists he has molded during his teaching career. In this regard, it is especially fitting that a fellowship be endowed in his honor.

President Benno C. Schmidt Jr. commented: "Dr. Glaser represents well the University's dedication to the tireless pursuit of knowledge. By offering his example to young neurologists, this program promises to encourage the humane approach to science which has made Gilbert Glaser such a remarkable teacher and healer. I endorse wholeheartedly the endowment of a fund in his honor."

Gifts to the Glaser Fellowship fund drive may be addressed to: Yale University School of Medicine; Office of Development; P.O. Box 3333; New Haven, CT 06510-8055; Attention: Glaser Fellowship fund drive.

W.U. Gardner Memorial Fellowship Fund Debuts

Yale's program of research training for medical students is benefitting from the W.U. Gardner Memorial Student Research Fellowship Fund. The gift will support several students each year as they undertake projects related to endocrinological aspects of cancer. The fund, established by Mrs. William U. Gardner, is receiving additional funds from friends, students and colleagues.

Dr. William Ullman Gardner came to Yale in 1935 as a National Research Council fellow to work in the department of anatomy. He served as professor and chairman of anatomy from 1943 to 1967 and was named Ebenezer K. Hunt Professor of Anatomy in 1958.

Dr. Gardner is remembered for his dedicated teaching of microscopic anatomy, embryology and gross anatomy. In the early 1940s, he introduced the system of teaching called prosection, which spread nationwide. He also played an important role in helping develop the Yale System for

medical and postgraduate medical education. He gave captivating lectures, not only in anatomy but also in endocrinology, genetics and experimental oncology. His laboratory introduced Yale medical students to emerging research ideas and formed the basis of many student theses.

Dr. Gardner's outstanding academic and research activities brought him international recognition as reflected in many appointments and honors.

He served as president of the American Association for Cancer Research, the American Association of Anatomists and the International Union Against Cancer. He advised many national and international agencies.

Dr. Gardner was on the board of governors for Eleanor Roosevelt Cancer Foundation, Jane Coffin Childs Fund and was scientific director of the Anna Fuller Fund. In 1974, he became professor emeritus and worked as scientific director of the Council for Tobacco Research of the Tobacco Company. He received honorary degrees from universities worldwide.

Dr. Gardner died in New Haven on Feb. 14, 1988.

Family Gift Honors Christiane Johnson

Mr. and Mrs. Arthur Johnson of Potomac, Md., have made a major commitment to the Yale Psychiatric Institute (YPI) Building Fund. Their gift, in memory of their daughter, will establish the Christiane Brooks Johnson Memorial Laboratory. Christy, as she was known by her family and friends, underwent successful treatment at YPI before her life ended tragically in a 1987 train crash near Baltimore.

The Johnsons' generosity has enabled the School of Medicine to move ahead with plans to incorporate neuroscience research laboratories in the new YPI facility. In expressing to his appreciation, Dean Leon E. Rosenberg wrote:

"We hope that you are feeling a great measure of satisfaction for the large part you are playing in helping us build the very best health care and research facility possible."

ALUMNI NEWS

Dr. Myron E. Wegman, '32, '32-'36 HS, has returned from evaluating a government-supported school of public health in Zaire and accepted a consultancy for this year with the U.S. Agency for International Development (AID) in Indonesia. He will advise AID on its assistance program in the country's five schools of public health. Last year, as a Kellogg Foundation National Fellow, Dr. Wegman traveled to the Soviet Union and Germany to visit the U.S. Army Russian Institute in Garmisch.

Dr. E. James Mulligan, '36, has retired and divides his time between Washington state and Hawaii, where he oil paints and plays golf. After completing his residency in otolaryngology at the Johns Hopkins School of Medicine in 1940, he remained on staff and had a private practice in Baltimore until 1980.

Dr. Malcolm C. Murfitt, '41, has retired after 42 years of practice in Lindsboar, Kan.

Dr. Rocko Fasanella, '43, along with other physicians and educators, was granted government permission to visit Cuba last April. He toured two medical hospitals and a psychiatric hospital, all of which use modern equipment and technology and offer free health care to citizens and foreigners. Dr. Fasanella is associate clinical professor of ophthalmology and visual science at the School of Medicine.

Dr. L.S. Wolfe, '45, has retired after 13 years of lecturing postgraduate courses at Columbia University College of Physicians and Surgeons.

Dr. John P. McGovern, '46 HS, was awarded the U.S. Surgeon General's Medal by Dr. C. Everett Koop in Washington, D.C. He received the medal for his work in alcoholism and drug abuse. Dr. McGovern founded the McGovern Allergy Clinic in Houston, and is president of the John P. McGovern Foundation and the McGovern Fund for the Behavioral Sciences. He served on the governing council of the American School Health Association and the editorial board of the *Journal of School Health*.

Dr. Rocco A. Calandruccio, '47, professor and chairman of orthopaedic



Dr. John P. McGovern, '46 HS (right), with Surgeon General C. Everett Koop.

surgery at the University of Tennessee Center for the Health Sciences, serves as chairman of the Committee on the History of Orthopaedic Surgery for the American Academy of Orthopaedic Surgeons (AAOS). Dr. Calandruccio is an active staff member at the Baptist Memorial Hospital and the Regional Medical Center at Memphis. He is a past president of AAOS and the Orthopaedic Research Society, and a member of the American Orthopaedic Association and the American Board of Orthopaedic Surgery.

Dr. Sidney S. Lee, '50, is a visiting professor of health policy at Harvard Medical School.

Dr. Robert Zeppa, '52, served on the American Association of Medical Colleges Committee on AIDS and the Academic Medical Center.

M. Bennett Marcus, '53 HS, is practicing obstetrics and gynecology at Brea and Whittier offices in California.

Dr. Teresita S. Elizan, '56-'58 HS, has been professor of neurology at the Mount Sinai School of Medicine in New York since 1977. She also is attending neurologist at Mount Sinai Hospital.

In April, **Dr. Harold J. Fallon,** '57, '62-'63 HS, was honored with mastership by the American College of Physicians (ACP) during its 70th annual session in San Francisco. Dr.

Fallon received this honor for his work as a clinician and internist, and for his contributions to the field of medicine. He is the William Branch Porter Professor of Medicine and chairman of the department of medicine at Medical College of Virginia in Richmond.

Dr. Jack W. Love, '58, is vice chief of staff at Cottage Hospital in Santa Barbara, an attending surgeon at the Santa Barbara Medical Foundation Clinic and associate clinical professor of surgery at UCLA Medical Center.

Dr. Festus O. Adebonojo, '60, formerly chair of the department of pediatrics at Meharry Medical College in Nashville, Tenn., has been appointed chair of the department of pediatrics at East Tennessee State University Quillen-Dishner College of Medicine. Dr. Adebonojo also served on the American Association of Medical Colleges Committee on AIDS and the Academic Medical Center.

Dr. Vincent T. Marchesi, '63, chairman of pathology and Anthony N. Brady Professor of Pathology, Cell Biology and Biology at Yale, received the Rous-Whipple Award from the American Association of Pathologists. The award honors a pathologist 50 years of age or older who carries on the tradition of research achievement exemplified by Nobel laureates Drs. Peyton Rous and George R. Whipple.

Theodore Rosenberg, '64 M.P.H., was appointed chief executive officer of the Community Hospital of Western Suffolk in Smithtown, N.Y.

Patricia D. Mail, '67 M.P.H, reported to duty in the Office of the Surgeon General Feb. 1, to assume duties related to staff support, medical school (USUHS) liaison, AIDS and drunk driving.

Dr. Peter Jokl, '68, '69-'73 HS, is professor of orthopaedics and rehabilitation and chief of the section of sports medicine at Yale.

Claudia J. Svara, '71 M.P.H., completed a residency in internal medicine and a fellowship in rheumatology, both at North Carolina Memorial Hospital. She is practicing medicine and rheumatology in Raleigh.

Dr. David B. Moyer, '72, is a captain in the Navy medical corps and head of the allergy service at the Naval Hospital, San Diego. He also was appointed the Navy's specialty advisor to the Surgeon General in the field of allergy and immunology.

Dr. David Lewin, '74, who is board certified in internal medicine and family medicine, is practicing in Far Hills, N.J.

Dr. Robert A. Brodner, '76 HS, has a private neurosurgical practice in West Palm Beach, Fla. He chairs the Ethics Committee at the Good Samaritan Hospital. Dr. Brodner also is president of Medical Doctors Political Action Committee of Palm Beach County.

Dr. E. Kirk Huang, '77, chief of cardiology at the Mid-Atlantic Kaiser Region in Maryland, has been appointed by the American College of Cardiology to its Committee on Private Sector Relations.

Debra W. Haffner, '79 M.P.H., serves as executive director of SIECUS (Sex Information and Education Council of the United States). SIECUS, a national, non-profit organization, promotes quality sex education.

Joann N. Bodurtha-Smith, '79, directs the clinical genetics program at the Medical College of Virginia and is conducting epidemiologic research on genetic determinants of heart disease.

Dr. Thomas J. Smith, '79, directs the oncology clinic at the Medical College of Virginia and is involved in rural health care projects and cancer information services.

Dr. Louann Brizendine, '81, is medical director of the inpatient psychiatry program at the University of California, San Francisco. From 1986 to 1988 she was assistant training director in the department of psychiatry at Harvard Medical School.

Dr. Wayne S. Fenton, '81 HS, staff physician and clinical administrator of an inpatient unit at Chestnut Lodge Hospital in Rockville, Md., was awarded a \$30,000, one-year research grant by the National Alliance for Research on Schizophrenia and Depression (NARSAD). He will study the natural history and long-term illness course of patients with schizophrenia. This year, Dr. Fenton also received a Young Investigator Award from the National Institute of Mental Health.



Dr. Wayne S. Fenton, '81 HS.

Dr. Jason D. Horowitz, '81, has joined Opticare, an eye health corporation, as a vitreo-retinal specialist in the Norwalk and Waterbury, Conn. offices.

Dr. Yasmeen A. Moody, '81 HS, who has completed a plastic surgery residency at Yale-New Haven Hospital, is in private practice in Ithaca, N.Y.

Dr. Laurie Margolies, '83, completed an MRI-CT-US fellowship at Yale-New Haven Hospital in July 1988 and is a radiologist at Griffin Hospital in Derby, Conn.

Carl D'Ruiz, '85 M.P.H., of Falls Church, Va., founded Radiation Technologies Inc., a company that provides consulting services in health, finance and environmental science to the government, as well as to non-profit and commercial institutions.

Caroline Roln, '86 M.P.H., is attending the University of Pennsylvania and is preparing to enter medical school in the fall of 1991. She is a research associate at the Leonard Davis Institute of Health Economics at the University of Pennsylvania, where her projects focus on hospice, care for AIDS patients, physician practices in HMOs and veterinary medicine education.

Maryann Britton, a second-year M.P.H. student, has won a \$4,000 scholarship grant as one of the nation's most promising health administration students. Her Maurice Moore Health Administration Award was given by the Federation of American Health Systems Foundation.

Association of Yale Alumni in Medicine

Thomas P. Kugelman, M.D. '60, *President*

Muriel D. Wolf, M.D. '59, Vice President

Gilbert F. Hogan, M.D. '57, Secretary

Dwight F. Miller, M.D. '56, Past President

Executive Committee

Sanfurd G. Bluestein, M.D. '46 Sharon L. Bonney, M.D. '76 Martin E. Gordon, M.D. '46 Attilio V. Granata, M.D. '77, Jay H. Hoofnagle, M.D. '70 Nicholas M. Passarelli, M.D. '59 Dorothea R. Peck, M.D. '43 Jerrold M. Post, M.D. '60 Romeo A. Vidone, M.D. '57 Warren D. Widmann, M.D. '61

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R. Leonard Kemler, M.D. '43 *Chairman Medical School Alumni Fund*

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ALUMNI REPORT

Spring in the alumni office consumed its usual energy with annual reunion planning. Reunion 1989 will be reported in the Fall/Winter issue of YALE MEDICINE. One sentimental note—Dr. Harry M. Zimmerman, '27, spoke at the Class of 1939's 50th reunion symposium which "remembered" neurosciences faculty and achievements at Yale 50 years ago. Harry was a neuropathology teacher to many of us two generations ago. Celebrating his 62nd anniversary of graduation from the School of Medicine, he anticipates a teaching date in neuropathology in Kyoto, Japan, in September 1990!

Especially heartwarming was the presence among our reunion faculty speakers, graduates of our school or house staff, who have achieved international academic distinction in medical schools throughout the country. Dr. Donald W. Seldin, '43, as our keynote speaker; Dr. William G. Anlyan, '49, of Duke University, celebrating his 40th reunion. And Dr. Gerard N. Burrow, '58, of the University of California at San Diego brought his insights about this time of dramatic change in medical education generally, and in internal medicine specifically. The reappointment of Dean Leon E. Rosenberg, HS '62-'63, to a second term was further gratifying news.

To everyone, the immense physical changes on our campus, with the bruised look of excavation and the dust of construction pervading Cedar Street and Congress Avenue, were most awesome changes. The promised growth of both space and services of the modern medical library; expanded laboratory space in the new Center for Molecular Medicine featured on our reunion program cover; and the outline of the new "campus" of Yale Psychiatric Institute are the dominant changes.

Possible commercial redevelopment of the entire medical center neighborhood—Downtown South-Hill North—hopefully will include a new conference center for our medical school and hospital. The new complex promises an environment which will

reflect the changes our new sciences promise, and be the site for continued education of alumni/ae and others.

At our February executive committee meeting, Medical Library Director Bella Berson described our new library. Merle Waxman, director of the office for women in medicine, defined commitments to change for women students and faculty at the medical school. Martin Luther King Day was the occasion for serious discussion of the problems of minority students and faculty, issues receiving attention on many campuses this year. Unflinching support is promised on our local scene.

Communication with our student body continues and grows. While the new curriculum becomes bewilderingly arcane to old alumni/ae, the emotions and character of medical students seem unchanged over time. They are bright, delightful, and with the universal motivations of the doctors past. They function as volunteers in phonathons, and enjoy conversations with alumni/ae, despite a message which seeks financial help. Students continue to enjoy bed-and-board invitations from alumni/ae when needed.

Our alumni association sponsored the season's last annual student tea this year. (The menu has some changes which define it as a more nourishing repast than the traditional teadelicacies; circumstances produce hungrier students these days.) Finally, each class has four to eight volunteer class agents, appointed as first-year students. The alumni office provided veal-and-pasta at Leon's to the four agents of 1989: Drs. Melissa Myers, Roger Widmann, Stephen Bharucha and Lewis Lipsey. They are now at Cambridge, Mass., Chicago and New York hospitals, training in medicine, surgery and radiology.

A revealing analysis of the regional distribution of our alumni/ae evolved from the AYAM committee which is attempting to identify alumni missing from our records. Approximately 600 medical school graduates and over 2,100 unidentified former house staff were discovered through this effort. The large presence of alumni currently

in California—593 or 14.5 percent, as compared with 684 or 16.7 percent in Connecticut—explains the growing trend of mini-reunions in Napa Valley.

When Western state totals are compared to tallies of Eastern states (New England to Washington, D.C.) however, the predominance of the latter was clear: 20 percent versus 52 percent. Though our graduates are Eastern-oriented, California has definite allure.

Student council representatives have asked the Association of Yale Alumni in Medicine to participate in a planned student activities center in Harkness Dormitory, a proposal approved by Dean Rosenberg. Developing plans will be described in future issues of YALE MEDICINE. They should provide opportunity for memorial gifts from faculty and alumni, many of whom have expressed interest in this muchneeded facility.

This is a time of farewell-taking of crucial association officers whose terms expire: President Dwight Miller, '56; Muriel Wolf, '59, secretary; executive committee representatives Romeo Vidone, '57, Joseph Curi, '64, Alexander Gaudio, '67; and Gilbert Hogan, '57 and Richard Lee, '64, as representatives of AYA. For their dedicated and effective service, our thanks go with them. We hope that the experience they gained will render them of mature future service to our organization.

Dr. Nicholas P.R. Spinelli, '44 Director of Alumni Affairs



Jodi Daske, '92, and Frank Lobo, '91, receive friendly counsel from Dr. Richard Breck, '45, during the May student financial aid phonathon.

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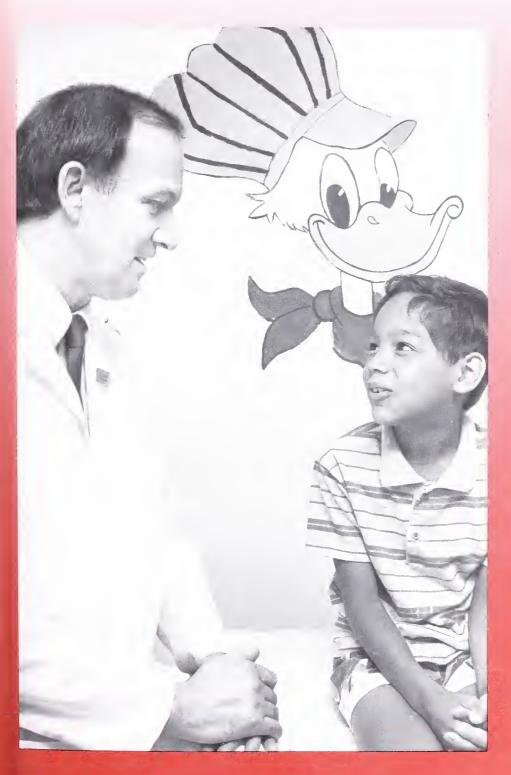
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YALE MEDICINE

Alumni Bulletin of the School of Medicine

Fall/Winter 1989-1990



Caring for
Children at Yale:
Something Closer
To Angels

YALE MEDICINE

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Fall/Winter 1989-1990; Volume 24, Number 1

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Associate Professor Arthur T. Viseltear exhorts the 1989 EPH graduating class to be true to its proud heritage.

6 Why America May Go to Hell

Children's Defense Fund founder Marion Wright Edelman offers a shocking overview of the prospects for America's youth.

11 Preparing Doctors for America's Third World

Two Yale medical graduates are putting their ideals to work by training physicians to help empower the poor.



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Yale pediatricians continue to blaze new trails in treating seriously ill children.

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Dr. Morris A. Wessel, '43, HS '48-'51, reflects on the lifelong influences of a Yale medical education.



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On the cover: Dr. Paul McCarthy, professor of pediatrics and chief of the general pediatrics section, gets acquainted with a new patient at the Yale-New Haven Primary Care Center. (Photo: Harry Bishop.)

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The magazine is produced by the Office of Public Information: Helaine Patterson, director; Gregory R. Huth, publications editor; Leah D'Eugenio, staff assistant, and Claire Bessinger, senior administrative assistant. The triannual magazine is prepared in cooperation with the Alumni and Development offices at the School of Medicine. Layout and production: Chave Design.

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REMEMBERING A. BARTLETT GIAMATTI

by Dr. Leon E. Rosenberg

I am delighted to welcome you, the 34 women and 66 men who constitute the Class of 1993 of the Yale School of Medicine. As a group you are rich in ethnic, racial and educational diversity. You have in common an excellent set of credentials and our admissions committee's perception that each of you will succeed in the rigorous, unique and time-proven Yale System of medical education.

I always use this opportunity to congratulate the members of the first-year class on being wise enough and mature enough to choose medicine as a career. In my view, medicine is profession—indeed calling-which warrants being chosen by young people with extraordinary dedication and ability; by young people whose inquisitiveness, compassion and self-discipline have earned for them the privilege of caring for the sick and of seeking answers to the sometimes vexing but always tantalizing questions of humankind's structure and function.

Today, however, I have an additional goal. I must behave like a clinical alchemist and try to transform loss into gain and despair into hope. A few days ago A. Bartlett Giamatti died suddenly at age 51. Most of you probably know him best as the president of the National League and as the

commissioner of baseball. To those of us, like me, fortunate enough to have served with him in his slightly less public position as president of Yale University, his death leaves a large, gaping wound causing recurring waves of pain.



A. Bartlett Giamatti, 1938-1989

I seek some relief through verbal remembrance. Bart was as brave, generous and civil as anyone I've known; his love of institutions-civic, educational or of sport-much heralded. He was a distinguished scholar of English; Dante and Spenser were his specialty. Science and medicine were late comers to understanding concern—thrust upon him because of his responsibilities as Yale's president. He greeted Medicine and physicians honestly, openly critically-as he greeted all of humankind's works. Although he wrote or spoke little prepared specifically for a medical audience, I find much in his words that those of us in medicine should heed and recall. Here are but a few examples.

In his freshman address to the Class of 1984, Bart spoke of the future this way:

We hear on all sides that we are weak; that knowledge is exploding unmanageably; that the pace of uncontrollevents exacerbated by instantaneous communication; technology is a beast biting its own tail; that ideology is iusufficient to au exploding reality; that the family is in

decline; that traditional values are devalued; that standards for work and play and quality of life are gone.

I believe the new wisdom of a century's end is really only fatigne masquerading as philosophy....These banalities have only in common the belief that we are not able to give definition—shape and contour—to what is around us. These shibboleths finally tell more about those who utter them than about reality.

Dean Leon E. Rosenberg presented this address to entering first-year medical students on Sept. 6, 1989.

YALE MEDICINE Fall/Winter 1989-1990



May 28, 1985: University President Giamatti celebrates the opening of the medical school's capital campaign with Dean Rosenberg and the late James G. Hirsch, the first campaign committee chairman.

How germane to medicine these words are! We are besieged by nay-sayers who look down because they lack the courage to look up. Bart had a passionate belief in the worthwhileness of life. He had little time for whiners and hand-wringers. He grappled with issues and solved problems, determined to find truth and to make our world better.

In his most public utterance—that concluding the sad disciplining of Pete Rose—Bart revealed his idealism. Try substituting in your mind's eye the word "medicine" each time you hear me say "baseball" and the word "profession" for "game," and I think you'll catch the universality of his message:

I believe baseball is a beautiful and exciting game, loved by millions—I among them—and I believe baseball is an important, enduring American institution. It must assert and aspire to the highest principles—of integrity, of professionalism, of performance, of fair play within its rules. It will come as no surprise that like any institution composed of human beings, this institution will not always fulfill its highest aspirations. I know of no earthly institution that does. But this one, because it is so much a part of our history as a people and because it has such a purchase on our national soul, has an obligation to the people for whom it is played....

I will be told that I am an idealist. I hope so. I will continue to locate ideals I hold for myself and for my country in the national game as well as in other of our national institutions. And while there will be debate and dissent about this or that or another occurence on or off the field... let there be not doubt or dissent about our goals for baseball or our dedication to it. Nor

about our vigilance and vigor—and patience—in protecting the game from blemish or stain or disgrace.

Would that all of us in medicine felt as deeply and acted as forcefully on behalf of our ancient profession.

Finally, lest any of you think that Bart was unrestrainedly serious or high-flown, I'll quote from his remarks to our medical school alumni in June 1985, at the annual reunion which marked my first year as dean.

I do get to come over here more than simply in June every year. I've been given a permanent visa to come over. I thought this morning I had one of two choices. Either I could give you a stirring lecture on the future of biomedical research and clinical care and... cost containment and the issnes of medicine which, as you know, I know nothing about, or I could tell you about the (capital) campaign for the School of Medicine; and it was a hard choice, but I've decided to forsake science for a while and to absent myself from felicity, as Shakespeare said, and...talk about money....

Laughing at oneself is a quality reserved for the secure and the confident. Bart possessed a delicious sense of humor embellished by his almost magical capacity to use the English language.

Again, let me tell you how pleased I am to see you all here today. I can think of no better way to welcome you to this school than by exhorting you to feel passionately about your lives and your pursuits, to love those people and those institutions you cherish and to trumpet your ideals. Then you'll understand a bit better why so many people mourn Bart Giamatti today and why I wish to bring some message for life out of his tragic, untimely death. YM

THE ETHOS OF PUBLIC HEALTH

by Arthur J. Viseltear, Ph.D., M.P.H.

My message is really rather simple and comes in the form of an admonishment: Do not forget the public health ethos; do not forget public health's essential and distinguishing character; do not forget public health's tone and guiding beliefs.

What, then, is the public health ethos? It is, I trust, something which brought you to Yale in the first place.

When the first chairman of this school, C.-E.A. Winslow, was a high school student in Boston, he sought admission to the Institute of Technology, known commonly as "Boston Tech," now known, of course, as M.I.T. Winslow was interviewed by William Thompson Sedgwick, then the leading sanitary scientist of his day and chairman and professor of the newly established department of biology. Sedgwick showed Winslow the laboratories and lecture halls, discussed with him the great significance of the public health crusade, and told Winslow of the opportunities available for those wishing to enter the field of public health. After their discussion, Sedgwick looked over his spectacles, smoothed down his walrus mustache, and said: "Well, Winslow, I think you can be a useful man."

When recounting this story in 1947, at the occasion of his receipt of the Sedgwick Award, the highest honor bestowed by the American Public Health Association, Winslow reminded those present that Sedgwick had said only that he could be useful: not wealthy, not even happy, but someone who would contribute, who would add to the sum total of the common good. And this became Winslow's and the Yale school's fundamental credo: to do good, to be useful, to be civically constructive.

Can you imagine a more useful profession than public health, a profession which has such an incredible array of critically important responsibilities, a profession which has been programmed to do so much good? There is none.

When Winslow entered the profession at the turn of the century, he had already understood that society was undergoing changes that needed to be addressed by a new, a more dynamic public health. Water had been made potable, food and drugs unadulturated, children immunized, women and laborers protected, factories made safe, and homes made habitable, but public health had simply not lived up to its full potential.

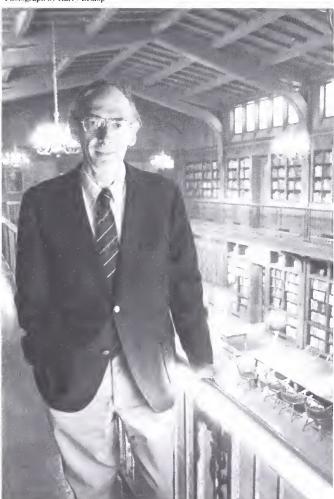
No matter how well the public health profession managed its affairs, personal health services—the way we in this country organized, administered and financed medical care—remained incoherent and desultory. Sickness was found to be inversely proportional to income; chronic disease remained uncontrolled; immunization rates were low; medical care had become costly, creating a financial barrier between physicians and patients; medical services were not preventive but rather offered alleviation after the event.

Public health soon became more than an engineering or sanitary science; more than a clinical or medical science. Instead, public health became a social science, one which would lead to an emergent profession, pushing its boundaries ever outward—extending from environmental hazards to tuberculosis and venereal disease control, from maternal and infant welfare to the prevention of cancer, from immunization to national health insurance.

Public health soon spoke for the weak, disenfranchised and sickly; for societal coherence; for programmatic approaches to national issues; for using national resources to remove economic barriers to good medical care by sharing costs; for fundamental research to determine the etiology of infectious and chronic diseases; for epidemiologic investigations to discover the physical and social determinants of disease in society.

Continued on page 5

Photograph by Harry Bishop



Arthur J. Viseltear, Ph.D., M.P.H., associate professor of the history of medicine and public health, presented this address to the department of epidemiology and public health graduating class on May 6, 1989. Dr. Viseltear has twice been voted the Francis Gilman Blake Award by the graduating medical school class as the most outstanding teacher in the medical arts. His most recent award, in 1988, was shared with Dr. Asghar Rastegar, professor of medicine.

Turner Report Calls for Strengthening YSM Epidemiology and Public Health

A University committee has released a report recommending to President Benno C. Schmidt Jr. a strategy to strengthen teaching and research in public health. The report said that the department of epidemiology and public health (EPH) should remain within the School of Medicine and retain its status as a school for the purposes of accreditation.

Committee chair, Provost Frank M. Turner, noted that the report demonstrates "the commitment of the University to remain a major force in this area of scholarship."

Released in July, the Turner report also suggested that EPH:

- be renamed the department of public health, to reflect its comprehensive mission;
- receive more money to renovate and expand its facilities at 60 College St.;
- recruit up to eight new faculty members;
- strengthen the process for recruiting and admitting students in the masters of public health program.

The report also said that teaching and research programs in public health should be further integrated with those in medicine, and that the department should enhance its ties with other parts of the University, such as social science departments and the schools of Organization and Management, and Forestry and Environmental Studies.

Provost Turner's committee deliberated more than six months, gathering information from faculty, students, alumni, and local and national leaders in public health. Mr. Turner commented, "All of Yale's professional schools seek to educate leaders in their respective enterprises. It is the belief of the committee that such leadership can and should continue to emerge from those persons who study public health at Yale."

Added medical school Dean Leon E. Rosenberg, "I strongly endorse the recommendations of the report, and am gratified that Yale's programs in public health will continue to be an integral part of the accredited programs of the School of Medicine.

"The near future of our country must see a closer bond forged between those scientists, educators, care givers, and administrators concerned with the health of groups and those concerned with the health of individuals. Medical practitioners must be oriented more toward health promotion and disease prevention. Conversely, epidemiologists and health policy experts must equip themselves to use the powerful new technologies being developed in cellular biology, molecular biology, and in genetics."

Concluded the dean: "The ties between our School of Medicine and its department of epidemiology and public health must be stronger. I will do all I can to see to it that Yale's educational, service and research activities aimed at improving the health of the public continue to be strengthened."



Burton H. Singer, Ph.D.

Burton H. Singer Named Chairman of Epidemiology and Public Health

Dean Leon E. Rosenberg announced the appointment of Burton H. Singer, Ph.D., professor of public health and the head of the biostatistics division, to a two-year term as department chairman and associate dean for public health. He succeeds Jan A.J. Stolwijk, Ph.D., the Susan Dwight Bliss Professor of Epidemiology and Public Health, who completed seven years as chairman and previously announced that he would return to full-time teaching and research.

Dr. Singer joined the Yale faculty in 1985. An internationally recognized expert in tropical disease research, he currently is working on the social and economic impact of malaria and other tropical diseases in developing countries.

Dean Rosenberg said of his appointment, "Burt Singer possesses a broad quantitative understanding of public health issues, and his superior scholarship, leadership and vision are great assets that will be invaluable as we work together to strengthen the public health program at Yale."

As chairman of a World Health Organization steering committee for social and economic research in the tropical disease program, Dr. Singer has been involved in the international debate concerning the extent that high-tech drugs and vector control methods interrupt disease and change the health status of people in developing countries.

Before joining the Yale faculty in 1985, Dr. Singer had chaired for two years Columbia University's department of statistics. His academic career also includes 18 years of teaching and research at Columbia, first as an assistant professor from 1967 to 1972 and then as an associate professor of mathematical statistics. In 1977 he was named professor. From 1977 to the present, he concurrently has been an adjunct professor at Rockefeller University.

A native of Chicago, Dr. Singer received B.S. and M.S. degrees from Case Institute of Technology in 1959 and 1961, respectively. In 1967, he received a Ph.D. degree in statistics from Stanford University.

And while this was going on, where were the physicians? Well, at first, the professions of medicine and public health were closely aligned in these endeavors, for many of our foremost public health educators—including Sedgwick, Rosenau, Welch, Biggs, Whipple, Winslow and Emerson—believed that both professions needed each other to fulfill their primary responsibility to protect and maintain health.

It soon became evident, however, that there were fundamental differences between the two professions, differences which would result in there being constructed an impenetrable barrier between medicine and public health. One difference was based on an economic imperative which held that, as the medical profession was concerned primarily with cure and reimbursed on a fee-for-service basis, the public health profession perforce must be relegated entirely to providing those services in which the private physician had no interest.

The second was the rise of the basic sciences, which led to the emergence of the medical specialties and the enthronement of reductionist medicine, upon which the medical schools and the medical profession justified as their primary mission sickness and not health, the patient and not the community, cure and not prevention—all principles which are at variance with the public health ethos.

Public Health, Private Profit

We come now to a new concern, the rise of the private sector in the health-care field. Schools of public health, and this appears true for medical schools as well, are in a state of transition. A society which now finds it convenient to refer to physicians as providers and patients as consumers will not be surprised to learn that more and more of our public health graduates are seeking employment in the private sector. There is certainly much that can be learned in a school of public health that will benefit those students who choose to enter private sector jobs; but how vastly different such employment is from the positions sought by those who entered the public health profession in the early decades of this century.

Where is the public health, or social, ethos to be found in corporate America?

Our job is to educate the next generation of leaders for public health, those who will take their places in the public sector at all levels of government, leaders for the voluntary sector, for international health, for philanthropic foundations, for the community, for the health sciences, for academe. It is for these areas that the profession of public health was established in the first place, and fiscal exigency or crises of faith should not be permitted to change our constituency or modify our historical and fundamental mission, which is to educate the next generation of public health elite: the public health scientists, academic researchers and executive authority practitioners.

And so the third component of the public health ethos—the guiding principle itself—must be public service, social utility, usefulness and altruism.

In 1945, Winslow was invited to deliver the commencement address at the Yale School of Medicine. In this address, his Yale valedictory, Winslow told the students that one of his favorite books was H.G. Wells' fantasy, *The Food of the Gods*, in which a youthful giant who has been raised in ignorance of the world about him escapes to London, where he stands towering above the frightened crowds. Amazed at their number and activities, the youth cries out in

wonder: "What are all you people doing with yourselves? What is it all for and where do I come in?" In his commencement address, Winslow asks the students: "What are you all for anyway?" And his answer—and his message—was a quote from Matthew Arnold's essay "Culture and Anarchy." Arnold wrote:

...there is of culture another view in which not solely the scientific passion...appears as the ground of it. There is a view in which all the love of our neighbor, the impulse toward action, help, and beneficence, the desire for removing human error, clearing human confusion, and diminishing human misery, the noble aspiration to leave the world better and happier than we found it—motives eminently such as are called social—come in as part of the grounds of culture...

It was man's duty to strive, to leave the world better and happier than he found it, to be useful, to advance always with hope and courage; that was the motive for a life of service in the cause of humanity. And it is also what I mean when I implore you not to forget the public health ethos.

Your future—our collective future—has recently been called into doubt. I believe that we shall weather that storm and be stronger for the experience, that we shall not only endure but prevail, and I present you with a series of questions which I ask you to consider as you leave Yale to enter your life's work.

You have evolved from sanitary scientists and go forth today as graduates of a modern school of public health; can you adapt to our rapidly changing environment and maintain your integrity? You are ambitious; will you let your ambition overwhelm your compassion? You are concerned with the instability of government's commitment to social justice; will you help determine government's proper role in our complex society as the pendulum swings away from desperately needed social programs to sterile efficiency?

You shall be working in a crazy quilt system which relies on all categories of health professionals, including the physicians; will you be able to work collaboratively and productively with this new amalgam to assure societal health and well-being? You are now organizational, evaluative, numerical, laboratory and policy wizards; will you be able to utilize your special talents and creative energies and look beyond your narrow spheres of expertise to address societal concerns?

The world is changing rapidly; will you do your share to influence the future? Economic reality is closing in upon you; will you remember and hold dear the public health ethos?

All of us who are here today, who love and embrace you and now let you go, have a stake in how you answer these questions.

We wish you well; good luck and Godspeed! YM

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WHY AMERICA MAY GO TO HELL



Marion Wright Edelman points out that the number of young adults in the 18 to 24 age group will continue to decline until the year 2030, and that all of the growth in this cohort will be from minorities: "At a time when demographic trends guarantee a shortage of young adults who will be workers, soldiers, leaders and parents, America cannot afford to waste a single child, not even the poorest, blackest, brownest one."

by Marian Wright Edelman

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A few days before his assassination on April 4, 1968, Dr. Martin Luther King Jr. called his mother to give her his sermon title for the next Sunday bulletin at Ebenezer Baptist Church. It was "Why America May Go to Hell."

The facts and trends I am about to recite may take us there unless we open our eyes and ears and hearts and see and hear and respond to our children, families and neighbors in need with a sense of urgency and action.

This is "truth or consequences" time in America. The election year is over and the chickens of child neglect are coming home to roost. Our national facade of general prosperity is pitted by pockets of depression in many rural and urban areas. Intolerable extremes of wealth and need are exemplified by Donald Trump's yacht and homeless "John Doe's" November 1988 death on a grate across from the State Department.

Our national security teeters atop an overstocked, overpriced suicide arsenal in which we have invested \$1.9 trillion since 1980 while cutting \$40 billion from programs for poor children and families. Yet, today we cannot ensure the safety of our children, or of any of us, on the streets of America.

Each day in the United States in 1986, an average of five youths under 18 were murdered. In our nation's capital, an average of two children a month died of knife and gunshot wounds during the first eight months of 1988. A child is safer in Northern Ireland than in America.

Our children are growing poorer while our nation is growing richer. All groups of children are poorer today than they were at the beginning of the decade—especially white children whose poverty rates increased by almost a third. If present trends persist, white children may face the same savage levels of poverty in the future that now afflict black and Hispanic children. Today:

Marian Wright Edelman is the founder and president of the Children's Defense Fund, an advocacy organization based in Washington, D.C. This article was adapted from an address she delivered at Harkness Auditorium on Jan. 16, 1989 as part of the medical school's observance of Martin Luther King Day.

- Nearly one in two black children is poor;
- One in three Hispanic children is poor.

If we as a nation do not mobilize to prevent and reduce child poverty, between now and the year 2000, all of the growth in our child population will consist of poor children, and our children in the next century will be poorer than today.

- In the year 2000, one in four of all American children, 16 million children, will be poor—three million more than today.
- By the year 2030, one in three, or 25 million American children, will be poor—about double the number today.

And these projections assume that the nation's economy remains stable, with typical cycles of recession and boom—for children are the first to suffer during recession and the last to benefit from recovery. An unusually severe economic setback could push the child poverty rate even higher

Not only will American children be poorer at the turn of the century, there will be fewer of them on the train carrying both an aging America and a multi-trillion dollar federal debtridden-economy into the next century, and a larger proportion of them will be black and brown children. Unless America heals its racial divisions, the chickens of continuing racism also will come home to roost in declining economic competitiveness and quality of life.

- By the year 2000, the total number of minority children will increase by over 25 percent and will constitute one-third of all ehildren; the number of white, non-Hispanic children will increase by only two-tenths of one percent.
- By the year 2030, minority children will increase by over 52 percent and constitute 41 percent of our child population; 45 percent by the year 2080. There will be six million fewer white, non-Hispanic children in 2030 than today.
- In the 22nd century, America may become a majority nonwhite nation more closely resembling today's world, which is already two-thirds nonwhite.

The number of young adults 18 to 24 years old who are our college students, labor force, military recruits and parents will continue to decline between 1985 and 2030, and all of the growth after 2000 will be largely minority. Between now and the year 2000, only one in four new labor force entrants will be white males; in 2000, the Hudson Institute estimates that only 15 percent of all new labor force entrants will be white males born in the U.S.

Determining Our Own Future

Demographics, however, do not dictate destiny. Attitudes, leadership and values do. It is the set of the national sails and not the gales that will determine the safety and quality of the American future. This is, therefore, for all its shadows, not a "gloom and doom" article. It is a "mobilize to save our future" article.

We cannot go back and change the last decade's birth rates. But we can prevent and reduce our rising child, family and human deficits. In the waning years of the 20th century, doing what is right and doing what is absolutely necessary to save our national skins have converged. I see the 1990s as a marvelous opportunity to revitalize and strengthen our democracy.

In 11 years, when the new century dawns with new global economic and military challenges, America will be ready to compete economically and lead morally only if we:

- Stop cheating and neglecting our children for selfish, short-sighted personal and political gain;
- Stop clinging to our racial past and recognize that America's ideals, future and fate are as inextricably intertwined with the fate of its poor and non-white children as with its privileged and white ones;
- Love our children more than we fear each other and our perceived or real external enemies;
- Acquire the discipline to invest preventively and systematically in all of our children now in order to reap a better trained work force and more stable families tomorrow;
- Curb the desires of the overprivileged so that the survival needs of the less privileged may be met;
- Spend less on weapons of death and more on lifelines of constructive development for our citizens;
- Set clear national, state, community and personal goals for child survival and development and invest whatever leadership, commitment, time, money and sustained effort are needed to achieve them; and
- Begin to live our lives in less selfish and more purposeful ways, redefining success by national and individual character and service rather than by consumption and the superficial barriers of race and class.

A Day in the Lives Of Black Mothers and Infants

Each day in 1986, 1,702 infants were born to black women.

- Almost one in four was born to a teenager.
- 1,042 were born to unmarried mothers.
- 450 were born to mothers with less than a high school education.
- 62 were born to mothers who had received no prenatal care.
- 103 were born to women who received prenatal care only in the last three months of pregnancy.
- 213 weighed less than 5.5 pounds at birth.

Each day in 1986, about 700 black girls between the ages of 15 and 19 became pregnant, and an estimated 250 had abortions.

—Copyright © 1988 Children's Defense Fund

Some Disturbing Statistics

- Today the U.S. ranks 18th in the world, behind Spain and Singapore, in overall infant mortality and 28th in keeping our black babies alive.
- In the year 2000, one of every five births—and more than a third of all black births—will be to a mother who did not receive early prenatal care. Babies born without prenatal care are much more likely to die in their first year.
- The U.S. Surgeon General's modest 1990 goal for reducing the percentage of low birth-weight babies will not be met for all infants until 2031, and for black infants until 2055.
- Based on 1980-1985 trends, the U.S. will never meet the Surgeon General's goal for immunizing our youngest children. It costs about \$1 to immunize a child and saves \$10 in remedial costs.
- AIDS will take an increasing toll on families and children in the next decade. The Centers for Disease Control estimates that within two years at least 10,000 children will be infected by the AIDS virus—the majority will be poor.
- Today, one in five of all American children has a single parent and is poor. Unless we act now, by the year 2000, one in four will have a single parent and be poor.
- If current trends continue, in the year 2000, one in every five 20-year-old women will be a mother and more than four out of five of them will not be married. Basic skills levels and poverty are the primary predictors of teen parenthood.
- The fastest growing segment of the homeless population in America is families with children. According to the National Academy of Sciences, an estimated 100,000 children are homeless each night.
- About 1.5 million children and adolescents run away from home each year or are thrown out.
- The number of youths held for alcohol and drug offenses increased by 56 percent between 1985 and 1987.
- Between 7.5 and 9.5 million children and adolescents in this country need help from mental health professionals. No more than 30 percent of that number are getting the attention they need. Among the three million children who are severely emotionally disturbed, two-thirds do not receive appropriate treatment.

—Children's Defense Fund

The cost of repairing our crumbling national foundation will be expensive in terms of effort, time and money. The cost of not repairing it, or patching it cosmetically, may be fatal.

Now is the time to begin shoring up our national foundation—together with leadership from a new president and Congress and from mainstream voices like yours. Unless the entire nation mobilizes for children and the future, key child and maternal health indicators which have stagnated for all babies, and eroded for many, will widen further.

Surely, rich, democratic America—with the world's most sophisticated health technology—can somehow do a better job in saving and producing healthy babies than some communist and poor Third World countries already do.

At a time of massive budget deficits, America cannot afford to waste resources by failing to prevent and curb the deficits which cripple our children and cost billions in later remedial and custodial dollars. Otherwise the rage and pain of homeless, hopeless, abused, disturbed, alienated children will continue to explode in our faces in communities all over America.

At a time when demographic trends guarantee a future shortage of young adults who will be workers, soldiers, leaders and parents, America cannot afford to waste a single child, not even the poorest, brownest, blackest one.

At a time of unprecedented economic competition from abroad and of changing patterns of production at home which demand higher basic educational skills. America cannot wait another minute to do whatever is needed to ensure that today's and tomorrow's work force will be prepared rather than useless—whatever their color.

We can save our children—and our future—but only by making hard national and community choices and reordering our priorities. Our overarching goal should be the prevention and reduction of child and family poverty.

Eliminating Poverty

The federal government counts the number of poor people in the country and the amount by which their incomes fall below the poverty line. So we know what it would cost to eliminate poverty.

Based on 1987 figures, the cost of:

- Eliminating child poverty is \$17.22 billion;
- Eliminating poverty in families with children is \$26.874 billion:
- Eliminating poverty among all persons is \$51.646 billion.

These numbers sound like a lot of money. And they are. But this is also a large and wealthy country. The cost of eliminating all poverty—\$51.646 billion—is equivalent to only 1 percent of our gross national product. Eliminating poverty in families with children—\$26.874 billion—would cost about 1.5 percent of what federal, state and local governments spend.

If the Energy Department can ask for \$50 billion to increase our nuclear weapon capacity; if proponents of the strategic defense initiative can ask for \$5 billion a year just to plan a \$100 billion space war; if the Pentagon does not hesitate to ask for almost \$50 billion to build a new stealth bomber before they can figure out how to make the old B-1 bombers work (And we've already invested \$30 billion in them!); if bankers can call for \$100 billion to \$300 billion to bail out imprudent savings and loans; if we can afford to leave untaxed the \$5 billion in tax breaks for inherited capital gains



"At least 10 to 15 percent of all pregnant women in New Haven use illicit drugs during their pregnancy." —Charles Williams, the city of New Haven's substance abuse coordinator, speaking at a Martin Luther King Day seminar on "Drugs, Minorities and Health."

for the wealthy and add \$6 to \$10 billion more in capital gains reductions, as President Bush has suggested, do not tell me that this nation cannot afford to lift its 13 million children out of poverty.

In 1989, CDF is urging adoption of preventive investment agenda to:

- 1. Ensure a health floor under every low-income mother and child in the nation by 1992;
- 2. Ensure that the nutrition program for pregnant women, infants and children (WIC) reaches all rather than just half of the women and children needing nutrition supplements;
- 3. Ensure that American children are fully immunized;
- 4. Ensure that every eligible child will be able to enroll in a Head Start program by 1992;

- 5. Ensure that every low-income child with a mother in the labor force has available, affordable, quality child care through immediate enactment of the Act for Better Child Care Services;
- Ensure that every child eligible for the compensatory education services of Chapter 1 of the Elementary and Secondary Education Act will receive them by 1992—a goal already set by Congress;
- 7. Ensure decent, affordable housing and increase the minimum wage and other family income supplements.

We believe these goals can be accomplished in four or five years and should be pursued as fast as the delivery systems of these successful programs can effectively serve more children. The longer we wait, the more children we will lose. For we are at a point in our national life when we no longer have the luxury of time nor the unchallenged myth of a guaranteed tomorrow.

The cost of CDF's preventive investment agenda for 1989 would be \$4.3 billion. To raise this amount per year we could:

- Reduce the allowable tax deduction for business entertainment, meals, sporting events and social dues from 80 percent to 50 percent, with reasonable maximums on each type of expenditure; or
- Stop "forgiving" loans we make to foreign governments to purchase weapons from us.

The cost of CDF's preventive investment agenda in 1992 would be about \$9.1 billion, or \$4.8 billion more than in 1989. This increase will cover: \$1.5 billion to extend Medicaid to all children with family incomes below twice the poverty line; \$1.2 billion to fully fund Head Start; \$1.3 billion to fully fund Chapter 1; and \$800 million to fully fund WIC.

To raise the additional \$4.8 billion we could do one of the following:

- Triple the cigarette excise tax and index it for inflation;
- Eliminate the tax break for the well-to-do that lets those who inherit not pay taxes on capital gains when they sell assets from an estate;
- Raise the liquor, wine and beer excise taxes up to the levels we had in the early 1950s, adjusted for inflation.

A long-term agenda that goes beyond survival to optimal development must go hand-in-hand with necessary job and income supplements while we insure that basic survival needs are being met.

From the Wards to the Wars

In July 1988, after a visit to the only day shelter for homeless families and children in Atlanta, I visited the neonatal intensive care nursery at Grady Memorial Hospital and watched wonderful doctors and nurses perform expensive, technology-aided miracles, saving the lives of premature infants. The mothers of many of these babies were teens, some addicted to crack, others out of school and out of hope.

The unit was like a scene from a battlefield hospital, where lives are saved only to be returned to the trenches for new brushes with death and suffering. Once these infants and their poverty-stricken mothers leave the hospital, they, for the most part, leave the system, leave our community, leave our sight and caring—until some new tragedy disrupts their lives.



Marian Wright Edelman lauds a program conceived by Dr. James P. Comer, HS '64-'67, Maurice Falk Professor in the Child Study Center and Psychiatry, and associate dean for student affairs. For more than 20 years, the Yale-New Haven Primary Prevention Project has boosted academic performance among high-risk children in New Haven public schools. The program has been emulated in several cities throughout the United States.

Such scenes are being played out in city hospitals throughout the country, and efforts to root out the underlying problems will take years and perhaps generations.

Lasting change must have at its core a strong cadre of professionals and citizens at the local, state and national levels. These activists must understand the needs of at-risk children and have the vision to implement programs and policies that both prevent and reduce child deficits. This support must begin before birth, and continue through the teen years to adulthood.

Linkages between all child-serving systems and support services must be made. Policy makers and professional service deliverers must recognize that child welfare, mental health and juvenile justice labels are often meaningless because many multiple-needs children fit two or more categories of need.

No good parent would choose between food, shelter, child care and education for their infants and toddlers any more than they would stop providing these things when their children reach school age or the teen years. Why should good social policy be any different?

The national bipartisan consensus that we have achieved on the importance of early childhood investment must now be implemented. The debate over the next four to eight years will be on the form, level, quality and timetable of that investment.

The recent American Agenda report, co-chaired by former Presidents Ford and Carter, puts investing in at-risk children among the top six national priorities. The study, given to President-elect Bush in November, calls for an additional \$2 billion annual investment over eight years to ensure full funding for successful children's programs like Head Start

and the Supplemental Food Program for Woman, Infants and Children (WIC), immunizations, child health and Chapter 1 education supplements.

This list is very similar to CDF priorities, which also include immediate enactment of the Act for Better Child Care to provide available, affordable, quality child care; an increase in the minimum wage; and other income supplements to help working poor families. President Bush's campaign position paper, "Investing in Children," overlaps significantly with the Ford-Carter and CDF immediate investment agenda. Although there are differences on the form of federal child care assistance, he and a critical mass within both parties agree on the need for a federal role and a significant investment in child care for working parents.

Stronger voices from powerful constituencies like yours need to be heard in testimony, in letters to the editor, on op-ed pages, in letters to Congress, in support of preventive investment in children. Information about interventions that work, like the Comer program (see accompanying photograph), needs to be shared as widely as possible. More such efforts to reach out to needy children and families must be undertaken, implemented and shared. This is a crucial foundation-laying period for demonstrating success and building the case for massive national investment in children and families in the 1992-2000 period.

Beyond speaking out in concert with other child advocates for improved policies at the national, state and local levels, you have a marvelous opportunity to instill a sense of service in your students. I applaud the service requirement of Yale's school of public health. I exhort you to encourage more career choices based on societal needs and provide an example of integrated creative service delivery that reaches out to communities in new ways.

I hope you will consider extending the service requirement to include all undergraduates and graduate and professional students at Yale, including medical students. I'm always amazed at how little many medical practitioners understand the context of their patients' lives or relate to non-medical personnel.

Young people need to have a better understanding of communities in need if we are to heal the divisions of our society. All of the contraceptive devices in the world will not alone be able to prevent teen pregnancy among the poorest young people if they do not have hope or see that life is going to be better at 21 than at 13. Child and family poverty have an important impact on the success of medical interventions.

Dr. King, in an article, "Showdown for Nonviolence," published after his assassination, plainly stated the choices we face in these waning years of the 20th century: "The American people are infected with racism—that is the peril. Paradoxically, they are also infected with democratic ideals—that is the hope. While doing wrong, they have the potential to do right. But they do not have a millenium to make changes. Nor have they a choice of continuing in the old way. The future they are asked to inaugurate is not so unpalatable that it justifies the evil that besets the nation. To end poverty, to extirpate prejudice, to free a tormented conscience, to make a tomorrow of justice, fair play and creativity—all these are worthy of the American ideal.

"We have an opportunity to avoid a national disaster and create a new spirit of class and racial harmony. We can write another luminous moral chapter in American history. All of us are on trial in this troubled hour, but time still permits us to meet the future with a clear conscience." Dr. King said that 20 years ago. Time is running out. YM

PREPARING DOCTORS FOR AMERICA'S THIRD WORLD



Dr. Sandra Shepherd (left) reviews a case with an RPSM house staff member. The social medicine program emphasizes support systems for its patients. Dr. Shepherd: "When our residents talk about a kid with Down's syndrome with all the interesting cardiac manifestations, I want to know what plans they and their health staff are helping this family make for taking this child home and handling this child."

by John Dinolfo

The Bronx: Montefiore Medical Center occupies a broad crest of hill, not far from the rush of traffic on the Mosholu Parkway. A name borrowed from the Siwanoy Indians who once inhabited the area, Mosholu translates roughly as "stream with smooth stones." The placid image is ironic in this inner city community, where the flow of life is anything but smooth—Montefiore serves the U.S. congressional district with the nation's lowest per capita income.

Welcome to America's Third World. In some South Bronx neighborhoods, an estimated 60 percent of households live below the federal poverty level. Here children are at high risk for lead poisoning and diseases caused by poor nutrition. Here the incidence of pediatric AIDS is among the highest in the nation, and crack, and the violence it breeds, seem omnipresent.

Two 1975 Yale School of Medicine graduates, Drs. Saundra D. Shepherd and A. Hal Strelnick, have joined the fight against these and other staggering medical problems through Montefiore's Residency Program in Social Medicine (RPSM). Begun in 1970, RPSM has trained more than 200 primary care physicians to practice in impoverished inner city and rural areas where serious doctor shortages exist.

The work involves training "an American version of barefoot doctors," notes Dr. Shepherd, Montefiore's director of social pediatrics. She explains that "barefoot doctors," a term that originated with China's Cultural Revolution, has come to refer generically to physicians who practice medicine in Third World countries.

Today, 56 percent of RPSM graduates care primarily for indigent patients; 70 percent of the program's former residents work with poor families in some capacity, often as part of an interdisciplinary health team. Many Montefiore-trained physicians have assumed leadership roles in government or in community health centers across the nation.

Despite diminished federal support for antipoverty projects, the social medicine program continues, thanks to a

committed faculty and high-quality residents, explains Dr. Robert J. Massad, chairman of Montefiore's department of family medicine and director of the RPSM. He commends Dr. Strelnick, who came to program in 1981, and Dr. Shepherd, who was recruited in 1983, for the role that they have played in RPSM's continuity.

The Lure of Community Medicine

Dr. Strelnick, Montefiore's deputy chair of family medicine, says he sought out the RPSM after being strongly influenced by the civil rights movement of the 1960s with its emphasis on community organization to improve health care and educational opportunities for the poor. Among his most memorable experiences at the School of Medicine, he cites two seminars taught by former Dean Fritz Redlich, one on social concepts of mental health, and the other, co-taught by Dr. Jay Katz, on medical ethics.

Also influenced by the '60s, Dr. Shepherd explains that her Yale training in psychiatry galvanized her desire to practice community medicine. "One of the emphases in the medical school was an interest in the psychosocial portion of medicine, an interest in the patient as a person," she says. "I remember taking some seminars with Dr. Sally Provence. She talked about child development not as an abstraction, but within the context of work she was doing with poor families in New Haven."

Dr. Shepherd was also strongly influenced as a medical student by Dr. Braxton McKee Jr., now an associate clinical professor of psychiatry. "His approach to psychiatry zeroed in on who the person was; what that person's social context was," she recalls. Subsequent training at the Connecticut Mental Health Center, the New Haven Black Panther Clinic and the department of pediatrics exposed her to problems of child abuse and neglect, domestic violence, substance abuse and other issues affecting poor families.

Dr. Shepherd suggests one of Yale's best legacies to medical students is in fostering a vision: "It was a place where you could make yourself what you wanted to be. Personal empowerment is something that happened, I think, for everybody at Yale."

Empowering poor families to gain a measure of control over their health care—and their lives—is a principal aim of Montefiore's Residency Program in Social Medicine. Few other settings offer the opportunity to work with indigent patients from so many different cultural and ethnic backgrounds. The population of the South Bronx includes blacks and Latinos—as well as families from Cambodia, Vietnam, Italy, Yugoslavia and other nations.

Often, the first step in empowerment is freeing patients to discuss what is really bothering them, points out Dr. Strelnick, also coordinator of the RPSM's community health program.

"People know that when you go to see a doctor—one of the few helping agencies in this community that isn't terrible to go to—you must have a ticket of admission," adds Dr. Massad. That "ticket," often a minor physical symptom, allows the patient to talk about serious personal issues.

Dr. Shepherd adds, "Our approach gives the patient and the physician permission to include all of the patient's life, and not just the symptom." For example, when a 9-year-old Puerto Rican girl presented with piercing abdominal pain shortly after her mother's death, a workup revealed no physical abnormality. The girl did indicate, however, that her grandmother had banned all mention of the mother's death because it was too painful to discuss.

"So we had her come back several times to meet with the residents and just talk about her sadness," Dr. Massad explains. "We got the brothers and sisters in too, and they talked about how terrible they felt. And the abdominal pain never came up again as a subject of discussion."

Indeed, for many poor patients, talking openly with a primary care team member may be the only chance to deal effectively with psychosomatic illness. "They'll do this with us, but they'd never confide in a psychiatrist or even a social worker," says Dr. Ellen Tattleman, Yale College '82, a Montefiore graduate who works at the Valentine Lane Family Practice in Yonkers, just across the Bronx border.

Despite their commitment and excellent academic credentials, most RPSM residents find it difficult at first to adapt to the pressures of practice in the inner city. Dr. Strelnick says adjustment problems are compounded if young physicians have not yet developed adequate listening skills, or the ability to elicit painful but necessary information.

Just how do Montefiore educators encourage such skills in a setting as challenging as the South Bronx? "The best thing we can do," says Dr. Strelnick, "is to give the residents permission to talk about the things that are bothering them. Then they, in turn, feel empowered to give the same permission to their patients. When your focus is entirely on diagnostic skills, it's difficult for residents to get the message that they can listen to these other things as well."

At the St. Barnabas Clinic in the South Bronx, one of Montefiore's many outreach sites, pediatric residents may encounter anything from the common cold to drug addiction, child abuse and, increasingly, AIDS. In this setting, Dr. Shepherd emphasizes the need to understand at least some of the patient's family system. Like a linguist fluent in several languages, Dr. Shepherd is highly sensitive to cultural nuance. She strives to impart this sensitivity to residents.

"When our residents talk about a kid with Down's syndrome with all its interesting cardiac manifestations, I want to know what plans they and the health team are helping this family make for taking this child home and handling this child," Dr. Shepherd explains. "Have you prepared the family for the day-to-day manifestations of this disease?' 'Who will help them get through this?'

"I never let them forget you can't treat a blind Filipina woman without understanding something of what the culture is like, and why she's going to have a very hard life because of what's expected of women in that culture. And you can't take care of a Yugoslav boy with a tumor without understanding a little bit about machismo from the Yugoslav perspective."

Another case in point involves helping Hispanic teenagers adapt to life as adults. Residents are instructed not to encourage these young people to separate from the family abruptly, as middle class, Anglo adolescents often feel compelled to do when they enter college, the military or the civilian work force.

Hispanic culture has little provision for such an emotional "surgical cut," Dr. Shepherd explains. In fact, the abrupt suspension of inter-generational bonds may aggravate the inevitable problems of normal teenage emotional development, leaving Hispanic teenagers without a sense of roots or direction. When adolescent conflicts cause undue stress in a Spanish-speaking family, Dr. Shepherd prescribes a clinical approach that fosters connectedness—and the evolution of more compatible family roles.

This emphasis on bonding and inclusion extends to doctorpatient relationships as well. Sometimes subtle cues mean a great deal, Dr. Strelnick reminds his residents. "It's really a question of how welcome people are. How many chairs do you have in your office? Do you clearly invite the family in?"

Social Medicine

In addition to caring for patients at their own hospital and the Albert Einstein College of Medicine of which it is a part, Montefiore residents apply their new skills at various



Dr. Hal Strelnick: empowering both residents and patients.

ambulatory care sites in the Bronx. Meanwhile, under Dr. Strelnick's supervision, residents receive didactic and clinical training in social medicine, which embraces such issues as economics, housing, culture, poverty and social networks. There is a heavy stress on epidemiology and on understanding the perception of health held, for example, by the average person born black or Hispanic and poor.

In addition, a core program provides training in how health care systems work and in medical Spanish. Weekly seminars address key medical problems of minority families, as well as the politics of health-care delivery in the inner city.

Among the many federally funded, primary care residency programs in the United States, RPSM remains the only one to offer in-depth, collaborative training in all three primary care specialties: internal medicine, pediatrics and family medicine.

Underlying the program's success is the realization that conventional, highly specialized medicine must often yield to an interdisciplinary approach to best treat many health problems of inner city residents. The Montefiore protocol allows attending physicians and residents to work closely with specially trained nurses, social workers and mid-level practitioners.

To reinforce the importance of team practice, residents are paired in their first year and then work as partners throughout their training. Residents are required to develop social medicine projects: programs designed to meet pressing needs within the community the project serves. The best of these projects, which have remained in place long after the residents have moved on, have introduced innovative approaches to help the homeless, to provide rape crisis intervention, and to deal with lead poisoning, drug addiction, nutritional deficiencies and other preventable health problems.

As a result of a long-term recruiting effort, Montefiore's program in social medicine attracts more than its share of women and minorities. Approximately 60 percent of the residents are women; 40 to 50 percent are from black or Hispanic backgrounds.

The emphasis on addressing the patient's medical and psychosocial needs strongly appeals to Dr. Liz Ortiz, a pediatrician at the Segundo Ruiz Belvis Neighborhood Family Care Center in the South Bronx and a former Montefiore resident. At Montefiore, she worked closely with Dr. Shepherd, who eventually became a friend as well as a mentor.

"Sandy's commitment is, by far, what I most respect," Dr. Ortiz explains. "She's an excellent clinician and an excellent role model. For me, she's really become like family."

Dr. Ortiz recalls a representative case from her residency: a young Hispanic mother's three children presented with pica, lead poisoning, and—to the mother's shock—symptoms of sexual abuse. Over a period of months, Dr. Ortiz treated the medical problems, and emphasized proper nutrition and the need to prevent the ingestion of lead paint. She also helped the mother and daughter deal with the trauma of sexual abuse, and suggested ways to prevent recurrence.

Dr. Ortiz also worked with AIDS patients at a New York State jail and with teenage drug addicts. She says her experience with HIV-positive inmates was particularly gratifying—and frustrating. "It's really barbaric. The attitude is, if you're a prisoner with AIDS, you have no rights and you deserve to die."

Angered by the quality of medical care for AIDS prisoners, Dr. Ortiz decided to pursue this issue for her social medicine project. She and a legal-aid lawyer worked with prison authorities and others to improve patient care for inmates. Dr. Ortiz says the experience reinforced her commitment to provide medical care to New York's most underserved families. Today, her patients include children with AIDS.

Dr. Ortiz points out how her training at Montefiore shaped her approach to serving patients. "A typical day in the social pediatrics program," she says, "involves a lot of patient advocacy." Sometimes that means making sure patients have heat in their apartments and adequate nutrition in addition to proper medical care. Often it involves directing patients to the appropriate resource to help them sort out crushing family or financial problems.

In a setting where the problems often seem overwhelming, the issues too complex, the days too short, and the resources too few, two Yale medical graduates—and the physicians they train—are making a difference.

In their interactions with poor patients from various cultural backgrounds, these physicians are not only addressing a critical need often ignored by society; they are helping adapt and refine primary care medicine as well. Drs. Shepherd and Strelnick hope the Montefiore model will someday serve families in other sections of New York City, as well as in underserved urban and rural communities across the nation. And they are working hard to make that a reality.

For them, the benefits of practicing coordinated, interdisciplinary primary care medicine in poor urban communities do not accrue to patients alone.

"This system allows the physician increasingly to feel comfortable with life issues," concludes Dr. Shepherd. "So it's a growth process for the provider as well as for the patient. We give ourselves permission to grow in our own lives at the same time we take care of patients." YM

CARING FOR CHILDREN AT YALE: SOMETHING CLOSER TO ANGELS

Photographs by Harry Bishop



Drs. Joseph B. Warshaw (left) and Richard A. Ehrenkranz, HS '72-'74, discuss the progress of a baby delivered after only 27 weeks' gestation. The infant is warmed under a plastic tent fashioned by the unit's murses. Dr. Warshaw is professor and chairman of pediatrics, and Dr. Ehrenkranz, professor of pediatrics and clinical director of Yale-New Hayen Hospital's newborn special care unit.

by Susan Okula

In the early 1960s, when Dr. Joseph B. Warshaw was a pediatric resident, a severely premature baby had about one chance in five to live. Childhood leukemia was tantamount to a death sentence. Children with blood disorders such as sickle cell anemia or thalassemia faced a future rife with dangers to their health.

Today, as the School of Medicine's chairman of pediatrics, Dr. Warshaw is pleased to report a dramatically improved scenario. Nine of 10 premature babies that weigh two to three pounds at birth grow to go home in a parent's arms. Infants with many types of congenital heart disease are surviving and

thriving. And although cures for sickle cell anemia and thalassemia remain elusive, most children with the disorders reach young adulthood if their conditions are carefully managed.

"It's challenging and difficult work, but it's incredibly rewarding," says G. Peter Beardsley, M.D., Ph.D., associate professor of pediatrics and pharmacology, and chief of pediatric hematology and oncology. "The major reason is that the majority of kids with childhood cancer are cured."

Each year, the 52 faculty members of the School of Medicine's department of pediatrics treat thousands of children at Yale-New Haven Hospital, the Yale Physicians Building and at affiliated hospital clinics throughout the state. The care ranges from providing routine health maintenance to grappling with life-and-death illnesses. Related research encompasses both the treatment and prevention of disease, as well as basic research involving the use of animals.

"Our people have gone into pediatrics because they have an acute sensitivity to the vulnerability of children and a sense of wanting to decrease that vulnerability," notes Dr. Warshaw.

Just how vulnerable children can be comes into focus in Yale's 44-bed newborn special care unit. Here, premature babies, some no bigger than an adult's hand, and full-term infants with congenital malformations are watched over constantly. An occasional teddy bear appears in an isolette, breaking the landscape of equipment that monitors heart rate, breathing and blood oxygen. Parents, who have 24-hour visiting privileges, are often nearby.

Established in 1960, the unit was the first of its kind in the country and is recognized as an international leader in neonatal medicine. Such units have contributed substantially to the steadily brightening future of their tiny patients.

Dr. Ian Gross, director of the unit and professor of pediatrics and obstetrics and gynecology, credits the success to better use and understanding of ventilators, more sophisticated monitoring equipment, better treatment of infections and advances in general supportive care in such areas as nutrition and nursing. As premature infants gain weight, they often outgrow their problems. "We keep their condition stable, while the babies heal themselves," observes Dr. Gross.

Clinical research is taking the healing process a step further. Dr. Gross reports that a recently completed project studied the effects of administering a combination of cortisone and a thyroid-like hormone to mothers who are about to deliver premature babies. The process appears to speed lung development before birth. "It may be a major improvement in that we can decrease the incidence of chronic lung disease," he says.

In another effort to improve lung function, faculty in the newborn unit are conducting a double-blind study investigating the effects of a cow-lung derived surfactant that is administered to premature babies who have immature lungs. Studies of improved nutrition for premature infants and ways to prevent bleeding to their brains are also underway.

To Heal the Fledgling Heart

Advances in pediatric cardiology also benefit many of the unit's tiny patients—some from the time they are in their mothers' wombs. Yale established a national first several years ago when it opened a fetal cardiovasular center for prenatal cardiac diagnosis and treatment. "We've clearly been able to alter the outlook for many babies by having identified them prior to delivery," observes Dr. Charles S. Kleinman, professor of pediatrics, diagnostic radiology, and obstetrics and gynecology.

For instance, treatment for supraventricular tachycardia with associated heart failure has saved 34 of 35 babies referred to Yale who were in critical condition prenatally. Previously, that form of heart failure had a 90 percent mortality rate.

Dr. Kleinman and the prenatal cardiac diagnosis center made a crucial difference for Andrew Amato of Cheshire, Conn., born last April at Yale-New Haven Hospital. At 26 weeks' gestation, Andrew was threatened by his twin sister's

severe heart failure, which was causing excess fluid to accumulate *en utero* and setting the stage for a premature delivery of both twins. Via an ultrasound examination, Dr. Kleinman found that the affected twin was suffering from mitral atresia, a congenital condition in which the left chamber of her heart failed to develop properly.

Dr. Kleinman prescribed the drug digoxin for the twins' mother, Mary Amato. Producing no lasting effects in the mother or the healthy twin, the digoxin improved the heart condition enough for the pregnancy to go to term. Andrew was born at a healthy 7 1/2 pounds, though his sister Mary died five days later. Throughout the pregnancy, Dr. Kleinman and his staff counseled the Amatos to help them deal with the almost sure death of the infant.

"It's not been easy, to say the least," Mrs. Amato said a few months later as she cradled Andrew. "But I can't say enough about all of them at Yale and about Dr. Kleinman. If it wasn't for him, we probably would not have had Andrew."

Yale also is in the forefront of pediatric cardiac catheterization. While in New Haven, Dr. Michael Berman (now at the University of Maryland at Baltimore) developed the Berman catheter, a flow-directed device. This revolutionary tool allows for the catheterization of the tiniest newborn and touched off use of the technique for treatment as well as diagnosis.

Dr. William E. Hellenbrand, associate professor of pediatrics and diagnostic radiology, has been a leader in this area. Hellenbrand uses balloon catheters to open obstructive blood vessels and narrowed valves without surgery in children. He also is one of a handful of physicians in the country to use a detachable, umbrella-like device during catheterization to close holes in the walls and blood vessels of the heart, avoiding the need for cardiac surgery. These techniques were developed through animal research prior to use in patients.

Surgery by the section has included the first successful heart-lung transplant in a child in New England and arterial switches on children with the once fatal condition known as transposition of the great vessels. In the spring, Y-NHH released Dr. Hellenbrand's first infant heart-transplant patient.

Another modern therapeutic tool developed at Yale is the battery-powered infusion pump for the continuous administration of insulin to diabetics. Diabetics needing at least three shots of insulin a day can instead opt for the pump, which has a goal of achieving more normal continuing blood sugar levels, according to Dr. William V. Tamborlane, professor of pediatrics and chief of the pediatric endocrinology section.

The pump has been associated with a number of improved body hormonal levels and metabolism functions, such as improved lipid and amino acid metabolism. Currently, researchers at 29 clinical

centers nationwide are gathering data to determine whether the pump can delay or prevent some of the major complications of diabetes in young people, such as blindness and renal failure.

Donning a different hat, Dr. Tamborlane is director of the Yale University Children's Clinical Research Center, located in Yale-New Haven Hospital. One of 78 general clinical research centers funded by the National Institutes of Health

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Dr. Warshaw pauses from his administrative and clinical responsibilities to spend some time in his laboratory. He and his research team are studying the cells of human fetuses and newborns at the molecular level in a quest to define the basic mechanisms that control the growth and maturation of various organs. The knowledge they are gaining is helping premature babies better adapt to life outside the womb.

Pediatric Basic Research: The Sweat Behind the Miracles

The department of pediatrics attracts nearly \$8 million a year in research grants, with much of that money earmarked for basic science. Among those projects:

- The laboratories of Dr. I. George Miller, the John F. Enders professor of pediatric infectious diseases, are investigating the latency characteristics of viruses. Dr. Miller has discovered a gene that seems to control the mechanism that activates the Epstein-Barr virus, associated with three types of cancer. Dr. Miller also is trying to "understand something of the dormancy or persistency of the AIDS virus."
- In association with Dr. Arthur Horwich, associate professor of human genetics and pediatrics, Dr. Martina Brueckner, a second-year fellow in the pediatric cardiology section, has located the chromosome on which there is a gene for a form of congenital heart disease in a mouse model. She is in the process of mapping it.
- Lung development in fetuses is a major focus of researchers in the Newborn Special Care Unit. A number of faculty members, working with laboratory animals, are attempting to understand what drives lung development and how to

accelerate the process. More recently, in conjunction with Dr. Warshaw, the unit has begun to investigate why oxygen delivered by ventilators can sometimes result in chronic lung injury. Dr. Warshaw also is studying the signaling mechanism in the maturation process of fetal organs.

- Researchers in the section of respiratory medicine section headed by Dr. Gabriel G. Haddad, associate professor of pediatrics, are studying the neurobiological mechanisms for the generation and maintenance of breathing. Researchers are also looking into possible ways to combat respiratory disorders such as severe sleep apnea in children and Sudden Infant Death Syndrome.
- In addition to his work on new drug development, the consequences of different kinds of DNA damage are being investigated by Dr. G. Peter Beardsley, head of the hematology and oncology section. He wants to discover how such damage or structural abnormality affects the replication of DNA and the enzymes and proteins that interact with DNA.
- In the critical care section, researchers are looking at what factors regulate mammalian metabolism when oxygen supply is limited, how growth affects the interaction between components of the lung structure, and the brain's response to a lack of blood flow or of oxygen.

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(NIH), the unit is among 14 such centers that focus on pediatric research. The center has five inpatient beds and a separate outpatient facility available to Yale researchers studying disease in children or normal physiology or response to new therapies.

Another Yale first came in the early 1970s when comprehensive sickle cell anemia testing and treatment made its debut under Dr. Howard A. Pearson, former chairman and professor of pediatrics. Although there is still no cure for sickle cell, the screening process identifies affected children so they can be monitored. Of 20,000 newborns screened over 15 years, none have died from sickle cell. In a similar, untested group, 10 to 15 children may have succumbed. In April 1987, Dr. Pearson joined an NIH Consensus Conference which recommended that testing for the disease become standard for newborns born to susceptible ethnic groups, including blacks. Thirty states thus far have instituted newborn screening.

Dr. Pearson conducted studies that helped validate a treatment program for thalassemia, an otherwise fatal anemialike disease that affects people of Greek, Italian and Southeast Asian descent. The regimen is complicated, requiring the regular slow overnight infusion of a drug that counteracts iron poisoning brought on by blood transfusions.

Additionally, Dr. Pearson has initiated a genetic screening program for the disease in Connecticut. As a result, the number of babies born with thalassemia has dropped. The program has been particularly effective in the close-knit Greek community, which Dr. Pearson reaches through its churches.

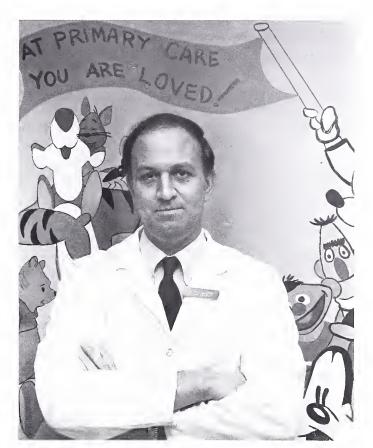
The Challenge of Adolescents

Older children also command their share of attention from Yale pediatricians. Dr. Walter R. Anyan, professor of pediatrics, directs the Medical Program for Adolescents, which is responsible for 3,000 visits a year at Yale and the New Haven Juvenile Detention Center. Dr. Anyan focuses much of his research on teen-age eating disorders, particularly anorexia nervosa. His treatment regimen, involving the healing of the anorexic both physically and psychologically, has become a national model.

The adolescent clinic acts as an advocate for teen-agers, a tradition established with its opening in 1968. It became possible then for a teen-ager to seek medical help without parental permission, a controversial notion. Today, Dr. Anyan says pediatricians can mediate between adolescent patients and their parents, often heading off conflicts before they occur. "You can perhaps be more usefully neutral in getting them to talk out the pros and cons of a given situation," he comments.

Patient advocacy is the rule rather than the exception at Yale. "Pediatricians generally will advocate for the welfare and well-being of children," asserts Dr. Warshaw, who doesn't hesitate to speak out on social issues affecting the young. Unfortunately, there are many opportunities for such social comment; today, about one of every five American children is living in a household with income below the poverty level.

Dr. Paul McCarthy, professor of pediatrics and chief of the general pediatrics section, sees many of New Haven's



As president of the Ambulatory Pediatric Association, Dr. Paul McCarthy is striving to improve health encounters between physicians and low-income families with children.

impoverished children through Yale-New Haven's pediatric primary care center, which he directs. The center accommodate 14,000 visits per year in a city numbered among the 10 poorest in the country. "I wish I could tell you that everything is great" concerning children today, he says. But Dr. McCarthy sees problem after problem piling up on poverty-stricken children, including drug abuse and AIDS. "Children, I think, are under more pressure today than they have been in a long time," he notes.

Dr. McCarthy is trying to lessen that pressure. As a member of the hospital's Infant Mortality Committee, he is trying to bring down the death rate of infants in New Haven, presently at 17 per 1,000—higher than in some Third World countries. The U.S. rate is 10 in 1,000.

On the national level, Dr. McCarthy is president of the Ambulatory Pediatric Association (APA). Under his leadership, a top APA priority has been to improve health encounters between physicians and poverty-stricken families with children. A major thrust is better educating residents about how to care for poor children. Physicians need to inspire more hope in the parents of those children, as well, Dr. McCarthy suggests.

"The legacy of the Reagan years has really distorted our population," adds Dr. Warshaw. "We see the results of federal cutbacks right in our newborn intensive care unit." He suggests that much of the work of his department could be prevented by adequate public health measures, such as universal health care insurance for pregnant women and small children.

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A New Children's Hospital: Continuing a Proud Legacy

Medical care for children took a significant step forward when America's first academic pediatrician was appointed at Yale nearly 180 years ago. Today, officials at Yale-New Haven Hospital and the School of Medicine are hoping that a children's hospital will be in operation to usher in the third century of pediatrics in New Haven.

In May 1988, Yale-New Haven Hospital's board of trustees authorized detailed planning for a \$160 million construction program that would include a 10-story children's facility. The project would allow for consolidation of pediatric services now scattered throughout the hospital complex and provide badly needed space for such operations as the newborn special care unit.

If approved by the state, construction would begin in the fall of 1990 and take four years to complete. Planned for the corner of Howard Avenue and Park Street, its first three levels would connect with the hospital's emergency room and diagnostic imaging and operating room suites, expanding these services with separate pediatric components. The newborn special care unit, adjoining labor and delivery suites, a modern intensive care unit and the pediatric specialty clinics would be moved to the new building. Plans also include modernization of the 520-bed Memorial Unit.

"The children's hospital is very important to our future development," notes Dr. Joseph B. Warshaw, chairman of pediatrics. "It would allow us to provide more effective care. That's the most important thing. It enhances and stimulates advocacy for children. It also is a statement that children do need special, dedicated resources when they are sick."

The children's hospital proposal illustrates how far medical care for children has come since the early 19th century, when doctors knew little of the diseases of the young and actually avoided treating them. In 1820, Yale helped reverse that trend with the appointment of Dr. Eli Ives.

In the August 1986 edition of *Connecticut Medicine*, Dr. Howard A. Pearson writes that as a young physician, Dr. Ives was frequently asked to treat infants and children in his New Haven practice at a time when the science of treating childhood diseases was virtually unheard of.

The pioneering Dr. Ives delivered formal lectures on the diseases of childhood, based on his own clinical experience, to an estimated 1,500 Yale medical students between 1813 and 1852. He was appointed professor of materia medica, botany and the diseases of children in 1820. Dr. Pearson writes: "His lectures reveal Ives to have been an astute diagnostician who had an enormous clinical experience which he applied to his practice and teaching. Good sense, humility, wit and affection for children are evident."

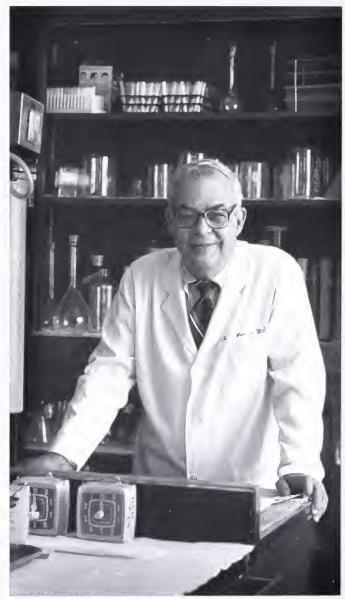
In 1921, Dr. Edwards A. Park was appointed Yale's first modern professor of pediatrics. Although at Yale only for five years, he recruited a prestigious faculty and a house staff. A 12-bed pediatric ward opened at New Haven Hospital. The seeds were sown for the next chairman, Dr. Grover Powers, who led the department for 30 years, an era Dr. Pearson calls the "golden years of pediatrics in New Haven."

Today, 52 faculty members in the department of pediatrics combine teaching, research and clinical care. In addition to training 48 residents, the department sponsors 25 fellows in areas such as critical care, medicine, oncology and pediatric cardiology. At Yale-New Haven Hospital, more than 190 beds are reserved for children.

Dr. Pearson writes, "The modern era of New Haven pediatrics [encompasses] the tremendous growth of full-time faculty and community pediatric practitioners; the explosion of biomedical information and technology; the increased awareness of psychosocial issues in pediatrics; and the development of effective prevention and therapy for many of the traditional scourges of childhood."

As modern medicine has conquered many of those scourges, physicians have pursued new challenges. For example, AIDS has replaced polio and whooping cough as the significant public health danger in America. While the prognosis for leukemia may be excellent in most cases, work needs to be done on childhood brain tumors. Neonatal medicine is saving more premature babies, but they are sometimes left with life-long health problems.

Concludes Dr. Warshaw, "We're moving ahead on a lot of fronts to advance knowledge and to train physicians to carry out the best science that will eventually put us out of business."



Dr. Howard A. Pearson, professor and former chairman of pediatrics, serves as executive and medical director of the Hole-in-the-Wall Gang Camp, a joint project of the Yale-New Haven Hospital and the School of Medicine. Founded by actor Paul Newman in 1988, the 300-acre camp in Ashford, Conn., offers an Old West environment for 500 seriously ill children every summer.



A year ago, Associate Professor G. Peter Beardsley diagnosed 8-year-old Katie Gasso with acute lymphocytic leukemia. The healthy-looking patient and her physician have much to smile about: Katie's prognosis group has a 90 percent survival rate.

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"By preventing one low-birthweight baby who runs up a neonatal health bill of \$200,000, we could take care of 140 women, giving them total prenatal and obstetric care. If we have 20 of those babies in our unit a year, it begins to make an impact. And yet we have this pay-later attitude."

The incidence of Acquired Immune Deficiency Syndrome (AIDS) among New Haven's children appears to be rapidly increasing. In the first half of 1989, referrals to Yale's pediatric AIDS program (the only one in Connecticut) averaged five to six children a month, almost double the 1988 rate, reports Dr. Warren A. Andiman, associate professor of pediatrics and epidemiology. He also serves as AIDS program director for Yale-New Haven Hospital.

As of mid-August, the clinic was following about 130 children born to HIV-infected mothers; 33 were known to have either AIDS or AIDS-related complex, while 13 more are probably infected. Ten children have died in the last four years. While children comprise 1.5 percent of AIDS patients nationally, they make up 5 to 6 percent of New Haven's AIDS population.

Dr. Andiman's research indicates that 25 to 30 percent of children born to infected mothers are themselves infected. He is trying to determine maternal risk factors in an attempt to minimize transmission from mothers to children.

In discussing very sick children, Dr. Andiman's voice grows soft. "Their family situations are chaotic and fragmented. The parents are ill themselves. They may have lost other children. It's the only disease I can think of in which multiple generations of a family are affected by a terminal illness."

Lacking effective long-term therapy for the children, Dr. Andiman and his staff help in other ways, such as directing families to appropriate social support organizations and entitlement programs. The staff also answers questions from other health care providers in the state and sends speakers out to educate non-medical groups, such as school boards.

The Caring Touch

AIDS disproportionately affects children of poverty. But other serious diseases of childhood, like cancer, know no economic barriers. Physicians in the hematology and oncology section of the department treat about 300 pediatric cancer patients, including 50 new patients, a year.

Young cancer patients benefit from multidisciplinary management of their disease. A team of specialists in surgery, pediatrics, orthopedics, pathology, therapeutic and diagnostic radiology, nursing, nutrition and social work meet regularly to discuss the children under their care. Working in conjunction with the Yale Comprehensive Cancer Center, the program's physicians have the latest in research and treatment protocols at their fingertips.

As part of this nationwide effort, Dr. Beardsley is investigating the biochemical pharmacology of anticancer drugs. He co-invented one of them, DDATHF, an antifolate that is now in clinical trials. "At least in preliminary studies with animals it seems to have a very, very wide spectrum of activity," he reports.

With the help of state-of-the-art diagnostic and treatment tools, Yale physicians, as scientists, are saving increasing numbers of their seriously ill young patients. Yet, as healers, doctors also must call on their humanity in treating patients and counseling families.

Ellen Gasso, mother of 8-year-old leukemia patient Katie Gasso, is quick to commend the doctors' touch with children. "They're always hugging the kids and patting them on the head. I am so happy to meet people like that. I just wish it was a different situation."

Another parent, Susan Swan, whose 9-year-old son, Marc, spent four months in the unit due to severe lung problems caused by a birth defect, remembers Dr. Kleinman bringing her son books and the unit's secretary bringing him videotapes. "I don't know how they do it on a daily basis and not get totally burned out," says Mrs. Swan of the staff. Marc died on Christmas Eve 1987 at home at the age of 10.

The Yale pediatricians, many of them parents themselves, have similar thoughts about the parents of their patients. "There's very little in the world as frightening as having a sick child," comments Dr. George Lister, professor of pediatrics and anesthesiology and director of the children's critical care unit. "It's amazing how people cope. None of us can put ourselves in their position and realize how difficult it is."

Adds Dr. Beardsley: "You find yourself wondering where they find the strength to deal with these kinds of problems. There are lots of happy endings, but there are also some very sad endings. You find, in general, these parents transformed from ordinary people into something closer to angels." YM

A PEDIATRICIAN LOOKS BACK

by Dr. Morris A. Wessel, '43, HS '48-'51

It was a beautiful fall day in 1939 when I approached the Sterling Hall of Medicine as a first-year medical student. As I noted the signs on the Institute of Human Relations and Sterling Hall of Medicine, I recalled reading with interest Dean Milton Winternitz's plans to enrich the medical school curriculum by bringing faculty from the social sciences, the Law School and the Divinity School into a collaborative teaching and research program for medical students.

Life experiences are never quite what one anticipates. I learned in a few days that Dr. Winternitz was no longer dean, and that his lofty hopes for integrated teaching and research through the Institute of Human Relations never materialized.

Philosophical musings abruptly gave way to more practical matters as I continued on my way to the anatomy laboratory. There I was assigned a cadaver and told to begin my dissection. My nose tingles and eyes burn even now as I remember the pungent odor of formaldehyde that permeated this first challenge of medical school. I wondered a bit about the man who had conveniently died and made his body available so I could begin my medical career.

As I stood by my cadaver, confused as to what to do next, a gentleman in a green scrub suit approached commenting, "My God, Doc, you look terrible! Take the weekend off! Here are two tickets for the Yale-Brown game."

His kindness was overwhelming. He called me "Doc," the first person ever to greet me in this manner; I felt fortunate to be in a medical school where faculty were so concerned about students. Later, I discovered this individual was Tom Greenwood, the anatomy department embalmer! Our friendship continued until his death a few years ago.

Memories of my first year are elusive. Dr. John Fulton, chairman of physiology, with his bubbling enthusiasm for neurophysiology and the history of medicine, stands out clearly in my mind. Most classes in anatomy, physiology, biochemistry, bacteriology, embryology and histology loomed as major hurdles to be surpassed so one could enter the clinical years.

Finally, in my second year, I began to feel that my classes, particularly the gross pathology sessions, were relevant to my goal of becoming a well-trained physician who cared for human beings. The inscription "HERE THE DEAD SERVE THE LIVING" on the wall of the autopsy room evoked a feeling of reverence for life.

Dr. Harry Zimmerman and Dr. Milton C. Winternitz, gifted members of the pathology department, emphasized how and why disease processes occurred in the anatomical specimen in our hands. I remember Dr. Zimmerman asking me how much whiskey one needed to imbibe each day and for how many days to produce the degree of cirrhosis of the liver in the specimen I was holding. I didn't know the answer then, or now, but I have never forgotten the etiological relationship between alcohol and liver disease.

Dr. Winternitz once handed me a heart with hypertrophied walls, which I assumed meant that it came from an aged individual. Yet the heart was quite small. Dr. Winternitz quizzed me vigorously as to how a heart with significant signs



Dr. Morris Wessel on Dr. Grover Powers: "The fact that a chairman of pediatrics was so concerned about a child and his breakfast made a long-lasting impression on me. I haven't interrupted a child's meal to perform an examination in 47 years."

Alumnus Profile: Dr. Morris A. Wessel, '43, HS '48-'51

After graduating from the School of Medicine in 1943, Dr. Morris Wessel did his pediatrics internship at Babies' Hospital in New York City. He then served for three years in Europe in the Army before returning to New Haven as rooming-in fellow from 1948 to 1951.

Since 1951 he has been in private practice in New Haven and serves as a consulting pediatrician at the Clifford Beers Child Guidance Clinic, a private voluntary agency. He has been a clinical professor of pediatrics at the School of Medicine since 1975. Dr. Wessel published *Parents Book for Raising a Healthy Child*, Ballentine (New York) in 1987.

of aging could be so small. I responded with a meek voice that the specimen might not be human. Luck was with me! It was, indeed, a pig's heart!

Dr. C.-E.A. Winslow's lectures in public health were outstanding. A tall, stately gentleman, he presented his lectures with great force and vitality, choosing his words carefully. He believed public health to be a social as well as biologic science. He urged physicians to take active leadership in insuring that every individual had a healthy standard of living. Dr. Winslow's interests were varied, and he lectured on such diverse subjects as atmospheric pollution, lead poisoning, the spread of disease through water and milk, occupational hazards, the need for low-cost housing and subsidization of medical services for all citizens.

His lecture on population control applies today. One must remember this class was held in 1941, when the 1849 Connecticut law prohibiting the use and prescription of contraceptives was still in effect. He advocated wide use of condoms, commenting that the reason for under-utilization was that many men felt such a practice was "like taking a bath with one's socks on."

Dr. Franz Goldman's lectures dealing with the organization and financing of health care were prophetic. What he wrote in 1924 is applicable today. Two of his early papers, published in Germany in 1924, emphasized the need for more nursing homes and home-care programs rather than an increase in hospital beds. He believed that midwives should be better trained, and that they should be utilized to a greater degree.

The American dream of a democratic society implied, according to Dr. Goldman, quality health care for all citizens, and he was impatient with the slow pace of improvements in this regard. He felt that somehow in his frequent speeches and testimony before congressional committees, he had failed to present his ideas in a convincing way. In an elective course l attended, he discussed cooperative plans, industrial- and union-sponsored arrangements, and prepaid health maintenance organizations, while emphasizing that universal health insurance was the only practical solution for financing medical care.

Dr. Goldman predicted that government financing of health care for the elderly and the poor would be difficult to fund because of excessive illnesses in these groups, a fact which is painfully obvious today. He also pointed out that voluntary plans would fail to protect a family during unemployment or a breadwinner's illness because of inability to continue payments of premiums.

Dr. Goldman's faith that students would carry on his struggle to improve health services is portrayed in an inscription he wrote in a copy of his book, *Voluntary Medical Care Insurance*, which he presented to a young colleague: "With best wishes for the future. Bear in mind, your labor is for future hours. Advance. Spare not!"

I am startled as I recall these preclinical years to realize the limited time spent in formal discussion of the meaning of health and illness for people in our society. I was fortunate to discover seminars in public health that widened my educational experience considerably. Important additions to today's current preclinical curriculum include Dr. Alan Mermann's first-year course in chronic illness and the course in professional responsibility conducted by Drs. Jay Katz and Robert Levine.

Clinical clerkships represented our first ongoing contact with patients. A clerkship in pediatrics under the chairmanship of Dr. Grover Powers was a unique experience. Teaching rounds for students began by meeting with a senior faculty member who usually led us to a patient's bedside, then to the x-ray department and the bacteriology laboratory.

When a patient died, the faculty member meeting with the clinical clerks accompanied us to the autopsy room to complete as fully as possible our understanding of the patient's disease.

"Come along with me," Dr. Powers said on our first meeting in pediatrics. He was a rotund individual with a shining bald head and a high-pitched voice. His warm sense of humor was revealed as we stopped at the bedside of a screaming 4-month-old infant. "Why do you think this baby is so unhappy?" he asked.

Having decided to be a pediatrician, I had spent hours reading the appropriate textbooks. I diagnosed the baby as suffering from scurvy due to inadequate Vitamin C intake. A classmate who had several nieces and nephews was far more realistic in clinical matters and suggested the problem was an ear infection or teething.

Dr. Powers whispered to a nurse who quickly fetched a bottle of warm milk. Cuddling the baby in his arms, the physician offered him the bottle, which he took with gusto. "This baby is hungry," Dr. Powers said with a twinkle in his eye, "which is the most common reason a baby cries." What a glorious initial meeting with a world-famous pediatrician!

On the next day, Dr. Powers led us to the bedside of a 4-year-old boy who was devouring his breakfast. No sooner had we all crowded into the room than Dr. Powers walked out. "Aren't you going to examine this patient with us?" I asked with disappointment in my voice.

Dr. Powers looked at me with a piercing glance and then commented with a smile, "You wouldn't expect me to disturb a child while he is eating, would you? We'll return shortly."

The fact that a chairman of pediatrics was so concerned about a child and his breakfast made a long-lasting impression on me. I haven't interrupted a child's meal to perform an examination in the 47 years since the incident took place!

During the second week of pediatric clerkship, Dr. Powers led us to Mildred Fousek's laboratory. Here Mrs. Fousek demonstrated bacterial growth on agar plates, while Dr. Powers reviewed the clinical status of the patients who were the source for these cultures. Frequently a house officer obtained cultures on siblings and parents as well as the patient on the ward. Viewing illness as a family affair is a concept 1 use to this day in my pediatric practice.

Dr. Grover Powers was justly proud of his small, world-famous department with three divisions: biochemistry, under the leadership of Dr. Daniel Darrow; infectious disease, led by Dr. James Trask; and the psychological division, directed by Dr. Edith Jackson. These scientists respected each other's clinical skills. I was surprised to learn when I moved to other institutions how unique Yale was to have senior faculty members representing these three central disciplines participating jointly in teaching and clinical service.

Another Famous Mentor

I first met Dr. Edith B. Jackson, pediatrician and psychoanalyst, in 1942, when I sought her advice for reading material dealing with children's reactions to hospitalization. I had been frustrated by my inability to comfort a crying child on the pediatric ward.

I anticipated she would offer me a reprint, a book or a list of references, and was quite unprepared for her question: "How did you happen to come to me just now with this question?" I began my answer by describing the unhappy child on the ward. Somehow within a few minutes I was talking about my own pent-up feelings about my tonsillectomy at the age of 9.



Dr. Harry Zimmerman established the nation's first section of neuropathology at Yale in the early 1930s.

Alumnus Profile: Dr. Harry Zimmerman, '27

In the fall of 1930, Yale medical school Dean Milton C. Winternitz appointed Dr. Harry Zimmerman, then an assistant professor, to establish the nation's first section of neuropathology, a task that he completed successfully. Throughout the 1930s, as an associate professor of pathology, Dr. Zimmerman built a reputation as one of the medical school's most gifted teachers.

During World War II, Dr. Zimmerman left Yale, ultimately to command the Naval Medical Research Unit on Guam. After the war, he became director of laboratories at Montefiore Medical Center and professor of pathology at the Columbia College of Physicians and Surgeons. From 1950 to 1952, he served as the first director of the Albert Einstein Medical College, where he became a friend of the school's legendary namesake.

Dr. Zimmerman missed his work as a teacher, however, and returned to his former position at Montefiore and Columbia. He rejoined the Albert Einstein faculty in 1964, when the school and Montefiore merged. At age 87, he remains active at Montefiore/Albert Einstein as a professor emeritus and research scientist.

For having trained 77 doctors who practice neuropathology in Japan, Dr. Zimmerman was awarded the Order of Sacred Treasure in 1973. Presented by the emperor, the order is the highest honor bestowed on a foreigner. A former president of the Association of Neuropathologists, Dr. Zimmerman will travel to Kyoto, Japan, to address the 1990 International Congress of Neuropathology.

Anyone who sought Dr. Jackson's advice remembers how her forthright questioning would bring a problem into focus. Dr. Jackson offered to meet with me weekly to discuss anything on my mind. She shared with me the Anna Freud-Dorothy Burlingham reports describing the behavior of children evacuated from war-torn London to the Hempstead nurseries in the countryside. We discussed feeding difficulties, sleep disturbances, loss of bowel and urinary control, and the clinginess these children displayed. Dr. Jackson emphasized that many children hospitalized down the hall suffered similar symptoms associated with hospitalization and separation from their parents.

The idea that regressive behavior occurs in children during illness and separation from parents is common knowledge today. However, these conversations took place more than 40 years ago in the early days of psychoanalytic observations of children. Dr. Jackson's pioneering role is exemplified by the fact that these discussions occurred between a famed psychoanalyst and a medical student on the pediatrics ward.

1 left Yale in 1943 for post-graduate training and military service and returned in 1948 as a pediatric fellow in the Rooming-In Project that Dr. Jackson directed.

With her unfailing insistence, Dr. Jackson had in 1946 convinced obstetricians, nurses, pediatricians, psychiatrists, hospital administrators and public health officials to support an experimental rooming-in unit. Here mothers, and fathers too, could enjoy their newborn babies uninterrupted by rigid regulations.

What did Dr. Jackson's pediatric fellows do? We met with expectant couples in the prenatal clinics; we helped teach prenatal classes; we examined babies at the mother's bedside shortly after birth; we visited mothers daily during the lying-in period. We encouraged breast-feeding whenever a mother wished to nurse her infant, at the same time knowing the importance of helping a mother if she chose to bottle-feed her infant.

We visited new mothers in their homes a few days after discharge; we maintained close phone contact during the first year and followed these babies for well-baby visits. I remained with the project for three years, so I was able to observe many of the babies when they attended the Betsy Ross Nursery School, housed in a building on South Street where Harkness dormitory is now located.

My experience in this program helped me understand that the assumption of parental responsibility is an evolving process and that a physician's interest and availability is a powerful therapeutic force, whether at the bedside, on a home visit, phone or in the office. Dr. Jackson's total commitment to parents and children demonstrated by her "attentive readiness to help" served as a model for the rooming-in fellows. In her mind, it was never a question of whether a phone call, a letter, or a visit to the bedside or the home was necessary, but rather if any of these services would help a parent or child.

Key to a pediatrician's professional life is a basic understanding of growth and development and how to serve families as an infant becomes a toddler, a nursery school child, a school-age child and then an adolescent. I was very fortunate to have been well-prepared for this role as well as having been thoroughly trained in the diagnosis and treatment of clinical illnesses in infancy, childhood and adolescence.

What each physician chooses to do with his or her life each day is history in the making, history of the profession and history of one's part in how our society uses knowledge in the care of human beings. Almost 50 years' association with Yale pediatrics has enabled me to find continuous satisfaction in serving the parents and children who seek my professional services, YM

GALLERY

Mary Tofts of Godelman the Pretended Rabbit Breeder



by John Faber (Dutch, 1684-1756) after John Laguerre (British, d. 1748)

The medical world was taken by surprise in 1726 when Mary Tofts started giving birth to rabbits. Here she is shown with the object of her notoriety, a bunny. Mary's ordeal began shortly after she miscarried, following a grueling day's work in the fields. At the time, she reported having observed rabbits frolicking and experiencing a craving for one. When the local midwife was recalled, he was surprised to deliver a fetal animal. As more followed, word of the preternatural occurrence spread. Medical men journeyed from London to observe and verify the

phenomenon. Each prominent visitor was obliged. More than 20 rabbits were delivered altogether.

For closer observation, Mary was taken to London where, under duress, she confessed the deception. She was sentenced to Bridewell, the workhouse. Members of the medical profession who had been duped were ruined. It is not known whether Mary was repentant. But she is generally credited with having perpetrated the hoax which led to the most ludicrous episode in the history of medicine.

—Susan Wheeler

SCOPE

Rippel Gift Funds Laboratory Renovation



Julius A. Rippel (seated) catches the attention of Dr. Graeme L. Hammond. Smiling in the background is Eric R. Rippel, president of The Famile E. Rippel Foundation and a member of the Dean's Council of the Yale School of Medicine.

A \$209,000 gift from the Fannie E. Rippel Foundation has matched a National Institutes of Health grant that enabled the School of Medicine to renovate a surgical research laboratory in Farnam Memorial Building (FMB). The facility has been named the Julius A. Rippel Surgical Research Laboratory for Protein Chemistry and Molecular Biology, in honor of the chairman of the foundation's board.

Renovations, which included replacing heating, cooling and electrical systems, represent the first step in modernizing FMB's second floor. Laboratory modernization is a top priority of the medical school.

Dr. Graeme L. Hammond, professor of surgery (cardiothoracic), directs the research that is performed in the lab. Over the years, Dr. Hammond and his colleagues have isolated and characterized peptides that effect transcription and translation in response to cell stress, as well as peptides that effect expression of the class I and II MHC genes. He and his team are also studying non-invasive methods to determine pulmonary preservation injuries and rejection.

In thanking the Fannie E. Rippel Foundation, Dr. Leon E. Rosenberg, dean of the School of Medicine, said: "Without up-to-date and well-equipped laboratories, we are handicapped in our efforts to keep pace with contemporary research that relies on modern scientific equipment."

Added Dr. William F. Collins Jr., chairman of the surgery department and the Harvey and Kate Cushing Professor of Surgery (Neurosurgery): "This renovation gives the department a resource that can support the molecular biology effort in cardiac surgery and act as a base for further development of molecular biology techniques in neurosurgery, plastic surgery, and transplantation."

Since 1962, the Rippel Foundation has contributed more than \$1 million to the Yale School of Medicine and Yale-New Haven Hospital, primarily to purchase equipment used in heart disease and cancer research and in the Magnetic Resonance Center, a joint project of the medical school and hospital.



Maxine Whitehead arrives from the Eastern Virginia Medical School.

YSM Establishes Minority Affairs Office; Director Selected

Maxine I. Whitehead has been appointed to the newly created position of director for minority affairs at the School of Medicine. She comes to Yale from Eastern Virginia Medical School (EVMS) in Norfolk, where she was assistant dean for minority and women's affairs.

Dean Leon E. Rosenberg said that Maxine Whitehead's appointment represents a positive step in the medical school's overall program to provide academic and social support for all minority students and faculty who seek it. He noted that Ms. Whitehead also will assist in recruiting members of minority groups.

"Ms. Whitehead possesses the skills and background that will enable her to focus on academic issues of minorities," the dean said. "As she develops our minority affairs program, she will bring together and thus strengthen the programs at the medical school which are committed to minorities and to the health of the underserved poor. By combining her talents with those of our students, faculty and staff, we will strive to help all minorities."

Since 1984, Ms. Whitehead has administered minority and women's

affairs at EVMS and also directed the federally funded Health Careers Opportunity Program. For nine prior years, she was assistant director and then director of the Office of Education Opportunity for the Association of University Programs in Health Administration.

During her years at EVMS, Mrs. Whitehead served on Association of American Medical College (AAMC) committees and edited a Southern regional newsletter for the AAMC minority affairs section.

West Haven VA Receives Schizophrenia Funding

A Schizophrenia Biological Research Center has been established at the West Haven Veterans Administration Medical Center. A five-year, \$2 million grant by the Department of Veterans Affairs has launched the new center, which will explore the benefits of new drugs, including clozapine, in treating schizophrenia.

Dr. Dennis S. Charney, chief of psychiatry at the West Haven VA hospital and associate professor of psychiatry at the School of Medicine, will co-direct the center with Dr. Benjamin S. Bunney, professor and chairman of the department of psychiatry. Robert B. Innis, M.D., Ph.D., chief of psychiatric research at the West Haven VA facility, is the study's scientific director.

Town Meetings Held on Research with Animals

This fall, members of the medical center community have been learning more about the process of biomedical research at a series of "town meetings." These hour-long sessions have provided students, staff and faculty the opportunity to learn more about current biomedical research that employs laboratory animals, and the laws and policies that govern such work.

The informal meetings, held at the medical school, Connecticut Medical Health Center and at the Veterans Administration Medical Center in West Haven, featured representatives from Yale's division of animal care, the animal care and use committee, and the medical research community. They

discussed how laboratory animals are employed in discovering new knowledge to prevent or cure disease.

Dr. Myron Genel, a pediatrician and associate dean for government and community affairs in the School of Medicine, moderated the discussions. Notes Dr. Genel: "These programs were intended to provide the thousands of people who work at Yale and our affiliated medical institutions the opportunity to enhance their understanding of the process of biomedical research. I hope that they have reaffirmed the need for and value of this research."

FACULTY NEWS



Ethan R. Nadel, Ph.D., succeeds Dr. Arthur B. Dubois as director of the John B. Pierce Foundation Laboratory. An expert on physiological controls and regulations in humans, in 1988 Dr. Nadel created the drink that Kanellos Kanelloupoulos drank during his record-setting, human-powered flight of the Daedelus aircraft in Greece.

Ethan Nadel New Director Of Pierce Foundation Lab

Ethan R. Nadel, Ph.D., has been named director of the John B. Pierce Foundation Laboratory for a five-year term. A fellow of the Pierce Foundation Laboratory and professor of epidemiology and physiology at the School of Medicine, Dr. Nadel is

internationally recognized for his research into physiological controls and regulations in humans. He succeeds Dr. Arthur B. DuBois, professor of epidemiology and physiology, who has resumed full-time research and teaching.

The Pierce Foundation Laboratory is affiliated with the School of Medicine; most of its scientists hold faculty appointments, teach and collaborate in research there. One area of study is how various environmental factors affect human health. For example, foundation scientists determine whether nicotine, ozone and other air contaminants cause changes in lung cell function or in perception. Other foundation scientists are studying how the senses change with age.

Dr. Nadel has written more than 100 scientific articles and serves on the editorial boards of several scientific journals. He came to the Pierce Foundation Laboratory in 1969 as a postdoctoral fellow after receiving his Ph.D. degree from the University of California at Santa Barbara. He and his colleagues are researching the regulation of blood pressure and how the body redistributes blood flow under different conditions.

Dr. Cheng Appointed Henry Bronson Professor

Yung-Chi Cheng, Ph.D., an internationally recognized expert in cancer and viral pharmacology, has been named by the Yale Corporation as the Henry Bronson Professor of Pharmacology. Professor Cheng previously worked at the University of North Carolina as professor of pharmacology and medicine and head of drug development for the Lineberger Cancer Research Center.

Professor Cheng received a Ph.D. degree in biochemical pharmacology from Brown University in 1972. That same year he came to Yale as a postdoctoral fellow in the pharmacology department, where he continued to work as a research associate during 1973 and 1974.

He spent his next five years at Roswell Park Memorial Institute at the State University of New York at Buffalo, where he was promoted to associate professor and cancer research scientist. From 1979 until his recent arrival at Yale, he worked for the

Drs. Edberg, Rastegar, Bohmfalk Prize Winners

Stephen C. Edberg, Ph.D., associate professor of laboratory medicine, and Dr. Asghar Rastegar, professor of medicine, have been named winners of the first Bohmfalk Prizes for excellence in teaching at the medical school.

The annual awards, funded by the Bohmfalk Family Charitable Trust, are given to two faculty members, one teaching clinical sciences and the other teaching basic sciences. The prizes reflect a recommendation by the curriculum committee that the School of Medicine offer more recognition to its best teachers.

A panel of faculty and students selected prize winners from nominations given by department chairmen, directors of medical studies and medical students.





Stephen Edberg, Ph.D., (left) and Dr. Asghar Rastegar (right): Bohmfalk Prize winners. Their awards reflect a renewed emphasis on excellence in teaching at the medical school.

University of North Carolina at Chapel Hill at the two positions mentioned above.

Professor Cheng's research has focused on viruses and forms of cancer that may have a viral basis, such as cervical cancer and nasal-pharyngeal carcinoma. He has helped develop assays for detecting antibodies for such cancers, and this has allowed for earlier diagnosis than previous methods. Dr. Cheng is the author of more than 100 articles and book chapters. Among his many honors, he has earned a National Cancer Institute Outstanding Investigator Award for the years 1987 through 1994.

Joseph D. Gall Elected Yale Corporation Trustee

Joseph D. Gall, Ph.D., a research scientist at the Carnegie Institution in Baltimore and a former Yale professor, has been elected a trustee of Yale University after a nationwide balloting of alumni. His six-year term began July 1, 1989.

Dr. Gall received his B.S. degree at Yale in 1948 and his Ph.D. degree from the University in 1952. From 1964 until 1984, he taught at Yale, first as a professor of biology and later as the Ross Granville Harrison Professor, teaching jointly in the molecular biophysics and biochemistry department.

Psychiatrist Named Deputy "Drug Czar"

The U.S. Senate has confirmed President George Bush's nomination of Herbert D. Kleber, professor of psychiatry at the School of Medicine and chief executive officer of the APT Foundation, as deputy director for demand reduction for the Office of National Drug Control Policy.

Dr. Kleber is one of two deputy directors who will work with William J. Bennett, the office's first director. This new team will develop a national drug control strategy that will encompass ways to prevent the manufacture, distribution and use of illegal drugs. The team hopes to reduce both the demand for and supply of illicit substances.

Dr. Kleber joined the Yale medical faculty in 1966, and in 1970 was a founder of the APT Foundation in New Haven, a mental health organization for addiction prevention and treatment of substance abuse. He also is director of the Substance Abuse Treatment Unit at Connecticut Mental Health Center.

Two Assistant Professors Named to Jameson Chairs

Two School of Medicine faculty members, Linda Carol Mayes, M.D., assistant professor in the Child Study Center and pediatrics, and Eric John Nestler, M.D., Ph.D., assistant professor of psychiatry, have been named the first Elizabeth Mears and House Jameson Assistant Professors of Psychiatry. The endowed assistant professorships, funded by the estate of the late Elizabeth M. Jameson of Newtown, Conn., are provided to junior faculty members of exceptional promise who are just launching a career. Each appointment is for a threeyear, non-renewable term.

Dr. Mayes, a pediatrician, specializes in visual perception and attention in infants. Her research, which involves presenting babies with stimuli and then videotaping and analyzing their reactions, is helping physicians better understand normal development in infants. Dr. Mayes also studies the social interactions between infants and their mothers.

Dr. Mayes graduated from the Vanderbilt University School of

Medicine in 1977. She came to Yale in 1982 to do clinical pediatric research as a Robert Wood Johnson fellow. From 1984 to 1985, she worked at Yale first as a fellow to the National Center for Clinical Infant Programs, and then as a research fellow supported by a Johnson & Johnson Advanced Pediatric Research Award, and the James Hudson Brown-Alexander Coxe Award from the School of Medicine. She was named assistant professor in 1986.

Dr. Nestler, a psychiatrist, has focused his research on the biochemical mechanisms by which drugs— especially opiates such as morphine—alter brain function and lead to clinical effects. He works out of the laboratory of molecular psychiatry located at the Connecticut Mental Health Center.

In 1982, Dr. Nestler was awarded a Ph.D. degree in pharmacology from Yale and the following year received his M.D. degree. Dr. Nestler also pursued a postdoctoral fellowship in pharmacology from 1982 to 1983 at the School of Medicine. He undertook his psychiatric residency at Yale from 1984 to 1987. An author of several articles and book chapters, he is co-author of the 1984 book *Protein Phosphorylation in the Nervous System*.

FACULTY NEWS

Halvor G. Aaslestad, Ph.D., assistant dean for research administration, was appointed associate dean for research affairs, effective July 1.

Dr. Aaslestad came to Yale in 1985 to serve as director of the Office of Grants and Contracts, and a year later he was named assistant dean. He previously served as chief of the Biological Sciences Review Section, Referral and Review Branch of the Division of Research Grants at the National Institutes of Health in Bethesda, Md. Within the past few years he has sought to build alliances between the School of Medicine and the industrial sector to carry out cooperative basic research.

Dr. Robert L. Arnstein, clinical professor of psychiatry, was nominated psychiatrist-in-chief by the Yale Corporation.

Dr. Arnstein began his career at Yale in 1956 as a staff psychiatrist at the division of student mental hygiene in

the department of university health (DUH). In 1960, he became DUH chief psychiatrist, a post held until 1971. At that time he became clinical professor at the University health service. Last year, Dr. Arnstein received the Edward L. Hitchcock Award for contributions to the field of college mental health.

Dr. John C. Baldwin, professor and chief of cardiothoracic surgery, was awarded the Traveling Fellowship of the Australia and New Zealand chapter of the American College of Surgeons. The award is given to one American academic surgeon each year. Dr. Baldwin served as a lecturer and moderator at the meeting of the Royal Australian College of Surgeons in Melbourne.

Dr. William S. Beckett, assistant professor of medicine, was one of five doctors nationwide to be awarded the Preventive Pulmonary Academic Award this year from the National Heart, Lung and Blood Institute, Division of Lung Disease. Under the grant, Dr. Beckett will institute a curriculum on lung disease prevention for medical students and continue his research in environmental lung disease.

Dr. Emile L. Boulpaep, professor of physiology, has been appointed to chair the newly formed educational policy and curriculum committee. The committee, which will replace the old curriculum committee, reports to and advises the Board of Permanent Officers and Dean Leon E. Rosenberg on educational matters and programs in the School of Medicine. The committee will confer with other educational programs at the School and University and with the departments of Epidemiology and Public Health, the Physicians Associate Program, the Graduate School and the School of Nursing.

Dr. Bernard Forget, professor of medicine and human genetics, has been appointed director of cooperating graduate programs in the biomedical sciences. The program allows first-year Ph.D. applicants to match their interest with the participating academic programs and ensures a flexible first year of study.

Dr. Ezra E.H. Griffith, associate professor of psychiatry and Afro-American studies, has been elected secretary of the American Board of Forensic Psychiatry. He will serve a one-year term.

Dr. Robert E. Handschumacher. professor of pharmacology, presented a lecture in April at the National Institutes of Health entitled "Cyclophilin: A Bridge Between Protein Conformation and Clinical Therapy." The lecture was part of a seminar sponsored by the NIGMS Pharmacology Research Associate Program. Dr. Handschumacher and his colleagues isolated and sequenced the cell protein cyclophilin. Research done on calf livers, thymuses and mice showed cyclophin binds to the drug cyclosporin, used to suppress the immune system and prevent it from destroying foreign tissue during transplants.



Friends and colleagues of Dr. G.D. Edith Hsing are establishing an endowed student research fellowship in her honor. She has been named professor emeritus by the Yale Corporation.

Gueh-Djen E. Hsiung, Ph.D., professor of laboratory medicine and chief of the virology laboratory at the Veterans Administration Medical Center in West Haven, was nominated professor emeritus by the Yale Corporation. She will continue to work in the virology laboratory.

Professor Hsiung began her career at Yale in 1953 as a postdoctoral fellow in microbiology and later became director of the virus diagnostic laboratory. Her research concentrates on the use of viral diagnosis in clinical medicine and applying cell culture methods for rapid viral diagnosis. This year she was awarded an honorary Doctor of Science degree from Michigan State University.

Dr. Sharon K. Inouye, assistant professor of medicine, has received a grant from the American Federation for Aging Research (AFAR), Inc., for biomedical research on aging. Dr. Inouye will study the incidence, risk factors and complications of delirium, or "acute confusional state," in hospitalized elderly patients. She hopes her study will contribute to decreasing morbidity and mortality in elderly patients, and will improve the quality of life for patients and families.

Dr. Elias E. Manuelidis, professor of neuropathology and neurology, was nominated professor emeritus by the Yale Corporation.

Dr. Manuelidis has led the neuropathology section for more than 20 years and since 1963 has been curator of the Yale brain tumor registry. Along with colleagues, he has discovered that some cases of Alzheimer's disease may be caused by an infectious agent similar to those that cause Creutzfeldt-Jakob disease, another form of dementia. He is a past president of the American Association of Neuropathologists and a consultant for the Alzheimer's Disease Task Force for the Connecticut State Department of Aging. Dr. Manuelidis will continue research at Yale.

Eric J. Nestler, Ph.D., the Elizabeth Mears and House Jameson Assistant Professor of Psychiatry and Pharmacology, was awarded two grants totaling more than \$650,000 over the next five years to support his research on the biochemical mechanisms underlying severe mental disorders and their treatments. He is one of five researchers to receive a McKnight Scholar Award from The McKnight Endowment Fund for Neuroscience for the "Molecular Characterization of the Locus Coeruleus" project. He also received the FIRST Award from the National Institute on Drug Abuse to fund the project "Intracellular Mediators of Psychotropic Drug Action." Dr. Nestler also received a Pfizer Scholar Award from Pfizer Pharmaceuticals and a Sloan Research Fellowship from the Alfred P. Słoan Foundations.

Rebeca Rico-Hesse, Ph.D., assistant professor of epidemiology, received a U.S. Public Health Service Special Recognition Award given at the National Institutes of Health. The award was given to Dr. Rico-Hesse for her work at the Centers for Disease Control in Atlanta, where she

developed techniques to determine the geographic origin of polioviruses isolated from patients with paralytic disease.

Dr. Elizabeth Jonas, a resident in neurology, has received the first Hugh L. Dwyer, M.D. Annual Award. The award, presented by Dr. Dorothea Peck '43, widow of Dr. Dwyer, will be given annually to a senior resident in internal medicine, neurology, or dermatology whose clinical practice closely emulates the characteristics which were the hallmarks of Dr. Dwyer—dedication, sound judgment, sharp diagnostic skills, continuing education, compassion and achievement in practicing medicine as an art as well as a science.

ALUMNI NEWS

Dr. John J. Wolfe, '32, served as chairman of the facial and plastic surgery department at Peking Union Medical School from 1932 to 1937. He was a faculty member at the Tata Memorial Hospital in Bombay, India, and Bejeg Singh Hospital in Bikaner, India, from 1938 to 1945. He served in the Air Force and went into private practice in Louisville, Ky., from 1947 to 1971. He has retired to Naples, Fla.

Dr. Walter J. Burdette, '42, has been elected president of the Yale Club of Houston. Dr. Burdette has a general and thoracic surgery practice and edits the section "Surgery Around the World" in *Surgical Rounds*. He participated in a national press conference with Dr. C. Everett Koop to celebrate the 25th anniversary of the original "Report to the Surgeon General on Smoking and Health," of which Dr. Burdette is one of four surviving committee members.

Dr. Donal L. Dunphy, '44, was honored by the department of pediatrics and the North Carolina Area Health Education Centers Program of the University of North Carolina School of Medicine with a symposium and banquet upon his retirement in July.



Dr. Walter J. Burdette, '42, with Dr. C. Everett Koop.

Dr. Sidney S. Feuerstein, '45, clinical professor of otolaryngology, head and neck surgery at Mount Sinai Medical School in New York, is a visiting professor at the San Diego Naval Hospital and a visiting lecturer in facial plastic surgery at Walter Reed Army Hospital in Washington, D.C.

Dr. Martin E. Gordon, '46, clinical professor of medicine at Yale and president of Gastroenterology PC, received the American Society of Gastrointestinal Endoscopy Recognition Award. He won the award for his development of the "Learning Center," a self-assessment educational program featured at the annual meeting of "Digestive Disease Week" in May in Washington, D.C. Dr. Gordon was section chairman during the first international meeting on travel medicine in Zurich, Switzerland, and is a lecturer on diagnostic and therapeutic problems of the traveler. He headed a clinical section presentation at the American Society of Tropical Medicine and Hygiene Meeting in December, 1988, and has written a "Global Disease Guide" and "Pocket Doc," designed for both physicians and travelers.



Dr. Martin E. Gordon, '46, has won an award for his "Learning Center," a self-assessment educational program.

Oscar Sussman, '47 M.P.H., became a member of the Florida Bar and is a consultant on public health and environmental law.

Dr. Everett B. Baker, '54-'59 HS, retired as director of emergency medicine at Mt. Sinai Hospital in Cleveland, Ohio. Dr. Baker served as assistant clinical professor of surgery and emergency medicine and senior clinical instructor of epidemiology and community health at Case Western Reserve Medical School. He was appointed adjunct professor at Lakeland and Cuyahoga community colleges in Ohio.

Emmet F. Horine, '58 M.P.H., retired to West Germany in 1987.

Dr. Amilicar W. Vianna, '58-'59 HS, is a professor of dentistry and coordinator of postgraduate courses in operative dentistry at the Federal University of Rio de Janeiro, Brazil. He is former dean of the Federal University Dental School.

Dr. Paul J. Friedman, '60, professor of radiology at the University of California San Diego Medical School, spent a one-year leave as senior scholar at the Institute of Medicine in Washington, D.C., working on problems in medical ethics.

Dr. John J. Schrogie, '60, was elected chairman, president and chief executive officer of the Philadelphia Association for Clinical Trials, a clinical research contract organization.

Dr. Francis J. Klocke, '62 HS, the Albert and Elizabeth Rekate Professor of Medicine and Cardiovascular Disease and chief of cardiology at the State University of New York, Buffalo, has been appointed to the Advisory Council of the National Heart, Lung, and Blood Institute. Dr. Klocke is chief of the division of cardiology at Erie County Medical Center, and is a consultant with several hospitals in the Buffalo area.

Dr. Richard A. Isay, '62-'65, is clinical professor of psychiatry at Cornell Medical College.

Dr. Augustus A. White, '63-'65 HS, has been appointed president of the University of Maryland at Baltimore, effective Jan. 1, 1990. Dr. White is professor of orthopedic surgery at Harvard Medical School and the Harvard-MIT Division of Health Science and Technology. He is also the orthopedic surgeon-in-chief at Beth Israel Hospital in Boston. From 1965 to 1978, Dr. White served on the faculty at Yale in the section of orthopaedic surgery. He is past president of the

Cervical Spine Research Society and is a member of the Board of Governors of the American Academy of Sports Physicians and the executive committee of the Orthopedic Research Society.

Dr. Frederick M. Burkle, '65-'68 HS, is professor of pediatrics at the University of Hawaii School of Medicine and professor of emergency medicine at Kapiolani Medical Center for Women and Children in Honolulu.

Dr. Marian Melish, '66, professor of pediatrics at the University of Hawaii John A. Burns School of Medicine, was selected scientist of the year by the Achievement Rewards for College Scientists Foundation. Dr. Melish, who is a specialist in childhood infectious diseases, was the first researcher in the United States to describe Kawasaki syndrome, a heart disease common among children in Hawaii, and is developing and testing gamma globulin as a treatment. She served as an assistant professor of pediatrics at the University of Hawaii and assistant professor at the University of California San Diego School of Medicine. During residency at the University of Rochester in New York, Dr. Melish discovered a new type of staph infection, which led to unification of four diseases categorized as Staphylococcal Scalded Skin Syndrome. She also purified the toxin responsible for Toxic-Shock Syndrome and is researching the effects of gamma globulin in treating serious infections in newborns. Dr. Melish directs the Infection Control Program at Kapiolani Medical Center for Women and Children and established the first comprehensive program in Hawaii for AIDS in children.

Dr. Mary W. Clark, '67, is associate professor of surgery, division of orthopedics at Penn State University.

Dr. Stephen C. Schimpff, '67, '67-'69 HS, professor of medicine, oncology and pharmacology at the University of Maryland, is executive vice president of the University of Maryland Medical System. Dr. Schimpff has completed a three-year term as secretary and treasurer of the American Society of Clinical Oncology and a three-year term as professor of oncology for the American Cancer Society. He serves on the board of the Maryland Hospital Education Institute and is president-elect of the Maryland division of the American Cancer Society. Dr. Schimpff and his wife,

Carol, have been elected to the board of Easter Seals of Maryland.

Dr. H. Steven Moffic, '71, formerly at Baylor College of Medicine in Houston, has been appointed professor and director of development for the department of psychiatry at the Medical College of Wisconsin.



Dr. H. Steven Moffic, '71.

Raymond L. Sphar, '72 M.P.H., who completed a three-year assignment for the Secretary of Defense, has been appointed director of research and development at the Naval Medical Command in Washington, D.C.

Dr. Dennis M. Styne, '74 HS, associate professor of pediatrics and pediatric endocrinology, was named chair of the department of pediatrics at the University of California Davis School of Medicine. Dr. Styne established a neonatal endocrine research program and directs the newborn screening program at the UC Davis Medical Center in Sacramento. He is president of the executive board of the Sacramento Pediatric Society and serves on the board of the Center for Adolescent Obesity.

Dr. Joel I. Franck, '79, passed his neurosurgery boards and is a diplomate of the American Board of Neurological Surgery. He helped organize for the International Conference at the American Enterprise Institute on "Regulating the Doctor's Fee: Costs, Controls and Competition Under Medicine," held in April in Washington, D.C.

Dr. Todd J. Garvin, '80, is assistant professor in the division of urology at the University of New Mexico in Albuquerque.

Dr. Robert V. Levine, '80 M.P.H., is vice president for administration at Flushing Hospital Medical Center in Queens, N.Y. He is a member of the Metropolitan Healthcare Administrator's Association and a nominee to the American College of Healthcare Executives.

Dr. Alan E. Schlesinger, '80, is assistant professor of radiology at the University of Michigan.

Dr. Lesley R. Levine, '81, is a fellow of the American College of Obstetrics and Gynecology and practices community ob/gyn in Oakland, Calif.

Dr. Charles B. Shana, '81, who completed a gastroenterology fellowship at the Brigham and Women's Hospital in 1988, has been appointed instructor of medicine at Harvard Medical School.

Dr. Paula M. Schlesinger, '82, is a lecturer in pediatrics at the University of Michigan.

Dr. Charles M. Zacks, '84, a fellow in cornea and external disease at the Bascom Palmer Eye Institute in Miami, Fla., completed in June a temporary teaching appointment in the department of ophthalmology at the Pacific Presbyterian Medical Center and a term as assistant clinical professor at the University of California Berkeley School of Optometry.

Dr. Walter B. Beaver, '84-'85 HS, who completed his residency at the Hospital for Special Surgery in New York City, has joined the Miller Orthopaedic Clinic in Charlotte, N.C., specializing in total joint replacement surgery.

Dr. Robert M. Jacobson, '84-'87 HS, is assistant professor and senior associate consultant for community pediatrics at the Mayo Clinic.

Dr. Fred E. Santoro, '85, joined a pediatric practice in New London, Conn., after completing a fellowship in adolescent medicine at Yale.

Dr. Edward C. Dempsey, '86 HS, instructor of medicine at the University of Colorado School of Medicine, was named a Pfizer postdoctoral fellow. Dr. Dempsey is studying pulmonary vascular disease, focusing on the

biological basis of pulmonary artery smooth muscle cell proliferation and hypertrophy in response to hypoxia.

Dr. Jay A. Gates, '86, '86-'89 HS, chief resident of anatomic pathology at Yale-New Haven Hospital, began a two-year fellowship in gastrointestinal pathology at Yale in July.

Dr. Evangeline R. Franklin-Nash, '82 M.D., M.P.H., completed her NHSC assignment at Hough Norwood Health Center in Cleveland, Ohio, in January, where she served two years as assistant medical director. She is assistant director at Mentor MEDNET Clinic Immediate Care/Occupational Medicine and an active part-time staff member at University Hospitals of Cleveland of Case Western Reserve University. Dr. Franklin-Nash served an internal medicine residency in Rochester, N.Y.

Association of Yale Alumni in Medicine

Thomas P. Kugelman, M.D. '60, *President*

Muriel D. Wolf, M.D. '59, *Vice President*

Gilbert F. Hogan, M.D. '57, Secretary

Dwight F. Miller, M.D. '56, *Past President*

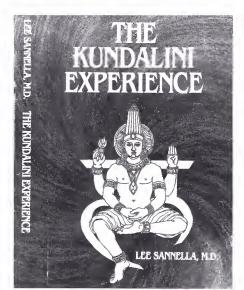
Executive Committee

Sanfurd G. Bluestein, M.D. '46 Sharon L. Bonney, M.D. '76 Martin E. Gordon, M.D. '46 Attilio V. Granata, M.D. '77, Jay H. Hoofnagle, M.D. '70 Nicholas M. Passarelli, M.D. '59 Dorothea R. Peck, M.D. '43 Jerrold M. Post, M.D. '60 Romeo A. Vidone, M.D. '57 Warren D. Widmann, M.D. '61

Representatives to the Association of Yale Alumni

Fredric K. Cantor, M.D. '62 Lycurgus M. Davey, M.D. '43 James Q. Haralambie, M.D. '35 Marie-Louise Johnson, M.D. '56 Kristaps J. Keggi, M.D. '59 Gioacchino S. Parrella, M.D. '41

R. Leonard Kemler, M.D. '43 Chairman Medical School Alumni Fund



The Kundalini Experience: Psychosis or Transcendence?, by Dr. Lee Sannella, '40. Integral Publishing (Lower Lake, Calif.) 1987.

NEW BOOKS

Microsurgery of the Skull Base, by Dr. Douglas E. Mattox, '73, with Professor Ugo Fisch. Thieme Medical Publishers, Inc. (New York) 1988.

Pediatric Endocrinology for the House, by Dr. Dennis M. Styne, '74 HS, Williams and Wilkins, Inc. (Baltimore) 1988.

Sublimation: Inquiries into Theoretical Psychoanalysis, by Dr. Hans W. Leowald, clinical professor emeritus. Yale Univ. Press (New Haven) 1988.

Exiles From Eden: Psychotherapy From an Evolutionary Perspective, by Kalman Glantz, Ph.D., and Dr. John K. Pearce, '61. W.W. Norton & Co., Inc. (New York) 1989.

In Sickness and in Wealth: American Hospitals in the Twentieth Century, by Rosemary Stevens, '62 M.P.H. Basic Books (New York) 1989.

Being Homosexual: Gay Men and Their Development, by Dr. Richard A. Isay, '62-'65 HS. Farrar, Straus & Giroux (New York) 1989.

AFTERSHOCK: Surviving the Delayed Effects of Trauma, Crisis and Loss, by Dr. Andrew E. Slaby, '73 M.P.H., '75 M.Phil., '77 Ph.D. Villard Books (New York) 1989.

A Parent's Guide to Common and Uncommon School Problems, by Dr. David A. Gross, '73-'76 HS and Dr. 1rl Extein, '74. PIA (Summit, N.J.) 1989.

Memorials

Deceased medical alumni and friends may be memorialized by a gift at any time to the Medical School Alumni Fund endowment in the name and class of the person so honored. The next-ofkin of a deceased medical alumnus/a is advised about this In Memoriam Program by a mailing from New Haven some weeks after the School of Medicine receives notification of the death. The letter of information includes a copy of the Testament of Remembrance in which the names of all persons so memorialized are listed in the medical section by class, thus establishing a lasting memorial. Donors receive a personally penned note of appreciation from the In Memoriam program director. Your inquiries and interest are welcome.

Deceased alumni and friends so honored in 1988-1989 were:

Myron A. Sallick '24 John M. Bailey '29 Julius G. Weiner '29 Moses D. Lischner '30 Edwin B. Seelye '33 Derick A. January '33 Francis P. Guida '34 Edward T. O'Donnell '34 Donald P. Morris '35 David Crocker '40 Maurice Ross '40 Joseph E. Sokal '40 John R. McDermott '41 Allan V.N. Goodyer '42 James L. Bradley '43 Edward D. Horning '43 Robert A. Sears '43 Francis A. Spellman '43 Class of 1944 Scholarship Fund James F. Cooney '46 Richard H. Mann '46 Richard G. Britton '47 Edward Foord '47 Lawrence C. Perry '47 Victor A. Drill '48 Boy Frame '48 Martin E. Smith '50 Robert E. Quinn '50 Marina P. Meyers '50 Frederick E. Vultee '50 Archie J. Golden '50 Class of 1950 Scholarship Fund Jonathan Barry '53 John C. Gallagher '58 Neal L. Rosen '80 Joseph Ciola (friend) Henri Peyre (friend)

Richard G. Jordan Director, In Memoriam Program

IN MEMORIAM

Mario L. Palmieri January 15, 1989	'32 M.D.
George H. Brown February 10, 1989	'36 M.D.
M. Hunter Brown December 1, 1988	'38 M.D.
Alexander Witkow November 21, 1988	`41 M.D.
Calvin W. Woodruff May 10, 1989	'44 M.D.

Lucia Fulton Donations Support Medical History

The Yale Medical Historical Library reports that donations in the memory of Lucia W. Fulton, wife of the late medical school faculty member Dr. John F. Fulton, have surpassed \$3,000. A long-time member of the Beaumont Medical Club and supporter of the Nathan Smith Club, Mrs. Fulton continued her tradition of entertaining medical students at her home until shortly before her death in April, 1989. Contributions in her name may be made to the Yale Medical Historical Library Fund, P.O. Box 3333, 333 Cedar St., New Haven, CT 06510.

OBITUARIES

Paul E. Molumphy, M.D.

Paul E. Molumphy died Aug. 1 at Yale-New Haven Hospital. He was 69.

Dr. Molumphy, associate clinical professor of obstetrics and gynecology at the School of Medicine and attending obstetrician and gynecologist at Yale-New Haven Hospital, graduated from Trinity College and in 1942 received his M.D. degree from the School of Medicine. He served his medical residency at Strong Memorial Hospital in New York and at New Haven Hospital. In 1950 he was awarded a Fulbright Fellowship for teaching and research in Paris.

His career at Yale began as an instructor in 1951, and from 1952 to 1955 he was assistant professor in

obstetrics and gynecology. He served on the medical faculties of the University of Maryland and Johns Hopkins University while acting as chief of obstetrics and gynecology at Baltimore City Hospitals. In 1961, he became assistant clinical professor at Yale and joined the late Dr. Irving Friedman in the practice of obstetrics and gynecology. He was appointed associate clinical professor in 1969.

He was associate chief of obstetrics and gynecology at Yale-New Haven Hospital from 1965 to 1972 and was a diplomate of the American Board of Obstetrics and Gynecology and a member of the American, Connecticut State and New Haven County medical societies. He had been associated in practice with Dr. Lowell Olson since 1965. During World War II, he served as a captain in the U.S. Army.

He leaves his wife, Ann; a son, Paul E. Molumphy Jr.; three daughters, Mary Jane Molumphy, Elizabeth Molumphy and Eileen Onofrio; a brother, William J. Molumphy Jr.; and a sister, Grace McEvoy.

Memorial contributions may be made to the Yale School of Medicine Alumni Fund, 333 Cedar St., New Haven, CT, 06510 or Yale-New Haven Hospital Annual Appeal, 24 Park St., New Haven, 06519.

Orlando Pelliccia, M.D.

Orlando Pelliccia Jr., clinical associate professor of surgery at the School of Medicine, died July 3 at the Hospital of St. Raphael. He was 76.

Dr. Pelliccia was chief of surgery at the Hospital of St. Raphael from 1953 to 1961. He served as acting chairman and then chairman of the hospital's department of surgery for 13 years. He later became associate program director for surgery and was a member of the board of trustees for nine years.

A graduate of Yale University and Johns Hopkins School of Medicine, he served his residency in general surgery at Union Memorial Hospital in Baltimore. Dr. Pelliccia then joined his uncle, the late Dr. William F. Verdi, in private practice of surgery at St. Raphael's. In 1982 he received the Dr. William F. Verdi Award for "significant clinical contributions to the hospital and its patients."

Dr. Pelliccia was a member of the American College of Surgeons and the New England Surgical Society. He was a fellow of the American College of Surgeons and a member of the American Medical Association, the Connecticut State Medical Society, the New Haven County Medical Association, the New Haven County Medical Society, and the Johns Hopkins Medical and Surgical Association.

He leaves a wife, Mary F. Keohane; two sons, Orlando Pelliccia III and Hayden N. Pelliccia; a daughter, Bambi Urann; a sister, Rose P. DiSesa; and seven grandchildren.

Johnathan Lanman, M.D.

Dr. Johnathan T. Lanman died Feb. 2 at his home in Bethesda, Md. He was 71.

In 1954, Dr. Lanman led a study at the New York University School of Medicine which showed that excess oxygen can lead to blindness in prematurely born babies. The discovery led to fundamental change in the care of premature infants.

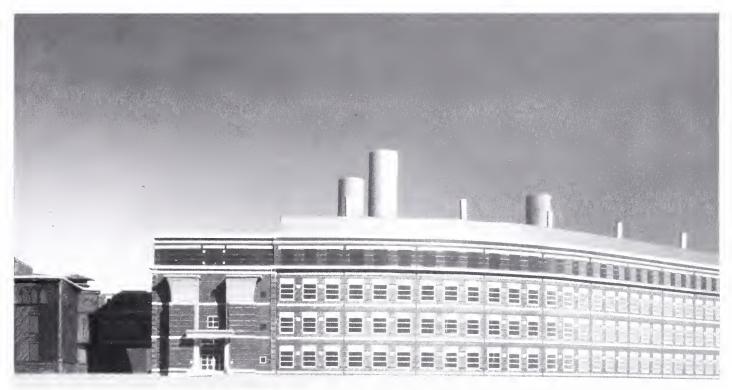
A native of Columbus, Ohio, Dr. Lanman graduated from Hotchkiss School and Yale College and in 1943 from the School of Medicine. He interned at Johns Hopkins Hospital and Sydenham Hospital in Baltimore. During World War II, he served as a Navy medical officer, lieutenant junior grade, primarily in China.

After the war he continued his residency at the University of California Hospital in San Francisco and was a fellow of the U.S. Public Health Service at the University. From 1960 to 1976, Dr. Lanman was professor and chairman of the pediatrics department at the State University of New York, Down State Medical Center. He worked as a visiting investigator and consultant at the Population Council, a private research organization affiliated with the former Rockefeller Institute, from 1972 to 1976. He also held a professorship at NYU Medical Center during that period. In 1976 he became director of the Center for Research for Mothers and Children at the National Institutes of Health. After retiring from medical research in 1978, Dr. Lanman became a collector of antique maps and globes.

Dr. Lanman is survived by his wife, Janet: a daughter, Jacquelyn Sheehan; and a son, Johnathan Lanman Jr.

Contributions may be made to Yale University, P.O. Box 2038, New Haven, 06521, for the benefit of the University's map collection.

DEVELOPMENT REPORT



Artist's rendering of the Center for Molecular Medicine. Plans call for pedestrian bridges connecting the center with the Jane Ellen Hope Building, and the Hope Building with Brady Memorial Laboratory across Cedar Street.

A \$2 million grant from the W.M. Keck Foundation of Los Angeles will help to construct the Yale Center for Molecular Medicine. The Keck grant will underwrite construction costs for the center's biotechnology resource laboratory, which is designed to serve those scientists in the center and throughout the University who make use of the powerful and highly sophisticated tools of the genetics revolution—recombinant DNA, monoclonal antibody synthesis and the isolation of purified cellular organelles.

The Center for Molecular Medicine, a 70,000-net-square-foot facility under construction on College Street, will house four pioneering programs studying specific molecules within cells to determine their functions in human development and disease. The building was designed by Cesar Pelli and Associates, a New Haven-based architectural group. Pelli's firm received the 1989 gold medal of the American Institute of Architects for such outstanding commissions as the World Financial Center in New York City, the Pacific Design Center in Los

Angeles and Canary Wharf Tower in London.

When it opens in early 1991, the Center for Molecular Medicine will represent one of Yale's most significant investments in basic research. Its more than 40 laboratories will help sustain Yale's leadership in molecular genetics and expand the scientific horizons in such fields as neurobiology, oncology and cardiovascular research.

The W.M. Keck Foundation joins an impressive group of organizations that have joined Yale as partners in this scientific venture: the Howard Hughes Medical Institute, the Lucille P. Markey Charitable Trust and the Ira DeCamp Foundation have all committed funds for the center's construction or research programs.

Established in 1954 by the founder of the Superior Oil Company, the W.M. Keck Foundation is one the the nation's largest foundations in terms of annual grants. It focuses primarily on colleges and universities throughout the United States, with emphasis on science, engineering and medical research.

Among its recent projects is the

construction of the 10-meter Keck Telescope atop Mauna Kea in Hawaii, the world's largest optical instrument, which will be capable of looking back four-fifths of the way to the beginning of the universe, gathering light transmitted billions of years ago. An earlier Keck grant to Yale enabled the expansion of the Microfabrication Facility in Becton Engineering and Applied Science Center.

In recognition of the Keck grant to the Center for Molecular Medicine, Yale will name the core labs the W.M. Keck Foundation Biotechnology Resource Laboratory. School of Medicine Dean Leon E. Rosenberg commented, "The foundation's farsighted investment in this and other scientific facilities in this country is both unusual and highly commendable."

ALUMNI REUNION 1989

Reunion 1989 was marked by excellent attendance and unique programs. Those classes with active leadership realized not only fine attendance but a warmth of communication which is precisely the intention of reunion exercises.

The 50th and 25th reunion classes of 1939 and 1964 held special programs. Dr. Joseph Forman, assisted by classmates Drs. J. Peter Murphy, William Druckemiller and Arthur Tucker, vividly related reminiscences of Drs. Harvey Cushing, John Fulton and Harold Burr, among others on the neurosciences faculty in the '30s at Yale. Their guest, Harry Zimmerman, '26, himself a young faculty member in neuropathology then, added commentary on Dr. Milton Winternitz, whom he regarded as one of the finest teachers he had ever known.

Dr. Joseph Curi, '64, assisted by Dr. Remo Fabbri, guided formal, yet always humorous, recollections of their classmates' 25-year journey through varied careers (including, among others, Drs. Pete Gross, Remo Fabbri, Chuck Vogel and Don Skinner).

In his formal welcome to the reunion later on Friday afternoon, Dean Leon E. Rosenberg introduced the keynote speaker, Dr. Donald W. Seldin, '43, professor of internal medicine at the University of Texas, Southwestern Medical Center in Dallas. His description of Dr. Seldin as one of the nation's foremost medical educators reflected both Dr. Seldin's charisma and teaching talents, as well as his achievement in building a school from its infancy into one of the most prestigious in the nation.

In his address, Dr. Seldin showed pictures of Southwestern School of Medicine as a cluster of quonset huts in the late 1940s, as compared with the magnificent structure of today, with faculty and students excelling as educators and researchers. In addressing the theme of this year's reunion program, he stressed his Yalefostered dedication to faculty-student interchange. He referred to his own personal relationship with his faculty role model at Yale, Dr. John P. Peters.

The attendance at this assembly of recent students of Dr. Seldin's from Texas underlined the influence he

wields today as a beloved teacher. "Continue to personally teach students to be intrinsically superior doctors," he emphasized. He expanded on the medical school curriculum during his participation in the panel on Saturday morning, "Medical Education: Will Yesterday's System Educate Tomorrow's Physician?"

This panel, introduced by Dr. Myron Genel, associate dean for government and community affairs, was moderated by Dr. Edward Benz, chairman of the task force for curriculum evaluation at the School of Medicine. This study underscored the continued health of the Yale System of medical education. To enhance the tradition of students' responsibility for their own professional development, the report emphasized the need for increased interpersonal communication between student and faculty monitors, and increased recognition and reward for teaching efforts. These were conclusions enhanced by the Macy Foundation report and the Ebert-Ginzberg report issued on the same subject.

In addressing the premedical curriculum in American colleges, Dr. William G. Anlyan, '49, chancellor of Duke University, presented a fascinating report of a program Duke inaugurated in concert with the University of North Carolina. It addressed the increasing deficiency among secondary schools in teaching the crucial subjects of mathematics and science. Diminishing numbers of applicants to medical schools nationally may reflect this trend, which is affecting all fields of science and technology. If we do not address this issue, America will lose its primacy in education as well as its competitive edge over and against other developed countries.

The Duke program selects 500 high school juniors and seniors for their scientific potential, and provides them their education and residence at no expense. The experience has been excellent; the first-year class at Duke's medical school includes six of the program's first graduates. Fifteen states are investigating this model.

Dr. Seldin, addressing the panel on the medical school curriculum change, continued his plea for the continuity of strong tutorial pedagogy at Yale. Changes in health-care delivery, the lack of access to health care for many, and the broadening base of knowledge in medicine, all threaten to tear apart the structure of our medical educational system.

The Ebert-Ginzberg recommendations, with their suggested changes to meet social needs, would in effect make medical schools a public utility. Though we must pause before anchoring medical schools to the solution of social problems, the necessary steps to resolve social inequities should command the interest of the student physician in his postgraduate, career-choice years. Medical schools are fragile and strained institutions which require fiscal aid and deliberate planning in this era of industrialized health care. The academic purpose of medical school, to transmit and generate new knowledge in a tutorial setting, must not be allowed to atrophy.

Dr. Gerard N. Burrow, '58, in summarizing the postgraduate or residency phase of physician training, summarized the problems generated by growth in medical knowledge, costs for medical care and the attendant decrease in time that patients remain in the hospital. The need for new environments for training—especially for the primary care physician—is clear. The need for more intimate student-faculty interface was reiterated. This symposium is currently being edited for possible publication.

Faculty lectures, which began the Saturday program, were hosted by the three recently appointed chairmen in the departments of internal medicine, diagnostic radiology and pediatrics.

Dr. Edwin C. Cadman, professor and chairman of medicine, thoughtfully assessed the factors of cost in the delivery of health-care and resulting threats which will compromise the health of our citizens. We need to become proactive in the health-care issue, educating our patient public, or else we face loss of our freedom to provide appropriate medical care. We

Continued on page 36

DISTINGUISHED SERVICE AWARDS



Dr. Harvey Young and his wife Hilda

Harvey L. Young, M.D., '52

More than three decades ago, your medical career took you the long distance to Spokane, Wash., and a lifetime dedicated to primary health care delivery for the public of your state. Along with your Yale medical degree, you took to Washington the responsibilities of both secretary and alumni fund agent for the Class of 1952. You have continued to fill these roles devotedly and successfully since.

Your achievements as a class agent led to your appointment as chairman of the Yale Medical School Alumni Fund from 1976 to 1981. It was a period of rising education costs in American medical schools and escalating student indebtedness. Through your manifestly brilliant administrative skills and equally evident love for Yale, you energized the process of our fund's activity so that the upward spiral of our alumni's response to our students' needs began. This rise in alumni consciousness continues to this day. The nearly 100 class agents you led learned to enjoy calls from you as you sought to help them realize your organized goals. For the first time, nearly a million dollars was realized in your tenure. The mark of Dr. Young remains today in our fund's efforts.

In retirement today, you and your wife, Hilda, devote missionary energy nationally to your church, the United Church of Christ, with the same devotion you gave and give to Yale.

In gratitude, your medical school salutes you today.



Dr. Lee Farr and his wife Miriam.

Lee E. Farr, M.D., '32

A member of the illustrious Class of 1932 in medicine, your orientation toward medical science and research was revealed soon after graduation.

A distinguished career filled a long and busy life and brought you international recognition as a pioneer in the fields of nuclear and environmental medicine, disciplines which you helped create. Research at the Rockefeller and Dupont institutes and your role in creating and directing the Brookhaven National Laboratory are a few of the famous way stations in your scientific journey. You have been a world lecturer for American medicine and for your government in nuclear medicine. You have identified the hazards which have required that environmental medicine become a new speciality.

Yet throughout your busy years, your love for and interest in Yale medicine never dimmed, and it is for these attentions that we honor you today. You were a member of advisory committees to our dean in the '50s and '60s, a representative to the alumni fund in the 1960s and alumni fund class agent in the '60s and '70s.

Your gift in 1988 establishing the Lee Farr Lectureship to honor the outstanding student theses yearly was your most recent contribution. It shall forever focus a beacon on Yale School of Medicine as a national resource for training physician scientists. Your face, as eager as those of the young awardees reading their papers, shone in the front row of the first lecture program of the series. You were our role model for the day, a pioneer who had shown the way as a student 60 years ago. Your medical school honors you for your devotion and achievements.

shall meet these challenges and improve our system if we move responsibly and soon.

Dr. Robert I. White Jr., professor and chairman of the department of diagnostic radiology, reported on the rapid growth of interventional radiology, employing percutaneous techniques, to a spectrum of vascular and nonvascular diseases. It is physician-intensive and requires a commitment to patient care analogous to that in surgery. The growth of this specialty, still in its infancy, is expected to accelerate.

Speaking for department Chairman Dr. Joseph Warshaw, who was lecturing in Poland, Dr. Frederick J. Suchy, chief of the division of pediatric gastroenterology, gave an effective talk on pediatric antecedents of adult gastrointestinal disorders.

At the AYAM annual meeting, Dr. Leon E. Rosenberg presented an uplifting summary of accomplishments achieved during his five-year term as dean: the successful capital campaign, and construction of the Harvey Cushing-John Hay Whitney Medical Library, Center for Molecular Medicine and Yale Psychiatric Institute. His report of a recent evaluation of the medical student curriculum was reassuring, with its emphasis on maintaining the spirit of the "Yale System." The conclusions reached by the curriculum task force were consonant with national critiques summarized in the recent Macy Foundation task force. The momentum of these activities promises that our School of Medicine should be more than ever firmly at the forefront of the nation's leading medical schools.

Special honors to reunion classes and leaders were accorded by Dr. Dwight Miller, president, who presided at his last meeting in that office. The traditional reunion spirit of the Saturday luncheon flourished again this year, aided by the emergence of a buoyant New Haven sun. Class agents met and discussed experiences of the past year and bade Mrs. Claire Lauterback farewell as she retires as director of the alumni fund.

A new program was added this year to our Saturday afternoon offerings. One hundred guests gathered in the Medical Historical Library to hear Dr. Sherwin Nuland, '55, HS'55-'61, associate clinical professor of surgery, and Dr. Jay Katz, the John A. Garver Professor of Law and Psychoanalysis,



Dr. Katherine Maurer, '85, celebrates with Dr. Donald W. Seldin, '43.

discuss "The Doctor-Patient Relationship 1990." The topic emerged from Dr. Katz's recently published book, *The Silent World of Doctor and Patient*. Dr. Katz called for increased communication between patient and doctor, with clinical decisions ultimately being made by the patient. This model has been called patient autonomy, to distinguish it from the traditional, more paternalistic pattern.

As a prominent practitioner of surgery in New Haven for almost three decades, and the recent author of Doctors: The Biography of Medicine, Dr. Nuland affirmed some of Dr. Katz's counsel, but firmly challenged the pragmatism of the Katz premise, which, he said, could intrude upon successful doctor-patient relationships and objective, rational decisionmaking. In an age of mandated informed consent, the process of "dialogue" with patients has been blurred and rendered needlessly complex and contentious. Lively audience participation ensued.

The alumni office invites names of potential participants or topics for future alumni weekend discussions. Following the program, Mrs. Samuel Kushlan and a group of alumni spouses served as hostesses to a tea. Although the tea was iced, the warmth of a

"tradition touched" was achieved. Guests were unanimous that a tea should be repeated next year.

The weekend ended with the individual class reunions at various clubs and locations. The Friends of the 50th reunion class dinner was attended by 75 guests, including a record number of the 50th. Dr. Joseph Forman led this group, having arranged their entire reunion. Dr. Samuel Kushlan, '34, and Dr. Richard Breck, '45, were masters of ceremony at the event, attended by Drs. Rosenberg and Genel and former Dean Robert and Mrs. Berliner. Also present were Dr. David Raskind, '24, celebrating his 65th reunion, and Dr. Russell Scobie, '29, celebrating his 60th. The fifth reunion class, 1984, attended as guests, with approximately 20 percent of the class present. They had a wonderful time.

Reunion 1989 was marked by a special caliber of warmth and camaraderie. The evolution of distant groups celebrating their own regional reunions is a growing phenomenon. This trend, and that of young alumni whose identity with a given class is blurred because of expanding duration of education, will be discussed in the next issue.

Dr. Nicholas P.R. Spinelli Director

REUNION REPORTS



Dr. David M. Raskind, '24, with Connie Tolliver, assistant to the medical school's director of alumni affairs.

1924

65th-year Reunion by Dr. David M. Raskind

As the only representative of my class at the 65th reunion, I can report that I received the 1924 class certificate, honoring the long record of our service—signed by Dean Rosenberg.

The special talks and lectures were stimulating, the reception and dinners and music were well planned for young and old to get acquainted.

My own rough 3 1/2-hour drive through a rainstorm was worth it, and I am happy that I could enjoy the sunshine that followed.

1934

55th-year Reunion by Dr. John B. Ogilvie

On June 10, 1989, the 55th reunion of the Yale medical school Class of 1934 was attended by **Dr. Joseph** (**Chick**) **Budnitz**, his lovely wife, **Rose**, and your secretary.

It was a very pleasant spring day, offering a great program with something for everyone. We, together with all the attendees who graduated prior to 1935, were presented with

appropriate scrolls from Dean Rosenberg to commemorate the occasion.

It is unfortunate that more of our classmates could not attend.

1939

50th-year Reunion by Dr. Joseph B. Forman

The Class of '39 celebrated its 50th reunion on a weekend packed with activities and sociability. It began with a seminar: "Neuroscience Faculty at Yale—Remembered," the undisputed highlight of all reunions this year at YSM.

The event was conceived by Art Tucker, scripted by Pete Murphy, and presented by yours truly—but the excitement and success were the products of Professors Harry Zimmerman and Max Taffel, guests of our class. They regaled us with anecdotes, fables and foibles of our remembered greats: Professors Harold Burr, John Fulton, Dean Milton Winternitz, Harvey Cushing and William German, all illustrated by Pete's collection of slides, which were enlivened by the titillating memories of our fluent discussants. Would that we had the foresight to record the

unforgettable tales revealed in 2 1/2 short hours of enjoyment.

To top off the reunion, we had our class dinner at the Graduates Club Saturday evening, along with members of classes antidating our own (not many), and a substantial representation from the Class of 1984, celebrating its first reunion. The mix was congenial and entertaining.

Attending the activities on June 9 and 10 were Harold and Estelle Coppersmith, Norm and Harriet Cressy, Bill and Mrs. Druckemiller, John and Mrs. Ferguson, Joss and Livia Forman, Jerry and Phoebe Greenfield, Becky Solomon, Ernie and Dene Sarason, Art and Gail Tucker, Mal and Margaret White. Letters of regret (due to health or other conflict) were received from Pete Murphy, Doug Riggs and Doug Walker. Tom Harvey was busy preparing for flex exams! Jacqueline Weigle-Brundy expired recently.

Where feasible, we plan a brief informative sketch on many of our classmates, of which 60 percent are extant. Incidentally, our YSM reunion had the largest attendance of any 50th class to date.

1944

45th-year Reunion by Dr. Edith M. Jurka

The Class of 1944 held its 45th reunion this June. The program for our graduation ceremony in September 1944 listed 43 graduates, and 20 of us-more than half of those alive—attended the reunion. A month before the reunion, Edith Jurka, our class secretary, sent out the seventh issue of our class journal, which included information about all class members and their families, so little update is needed. Between then and the reunion Calvin Woodruff died. Bill Stem, Larry Greenman, Joe Spelman and Reuben Zucker have died in previous years. Several others who wanted to attend the reunion could not because of illness of their own or their family's.

The following attended: John and Melba Coolidge, George and Sylvia Corcoran, Frank and Betty Ann



Dr. Howard B. Hamilton, '44, exchanges views with classmate Dr. Edith B. Jurka. Dr. Jurka has been class secretary since before graduation.

Countryman, John and Florence Doherty, Robert and Jane Frelick, Charles and Mary Hall, Ray and Jane James, Ward and Betty Jenkins, Ronald and Olive Losee, Reese and Elizabeth Ann Matteson, Larry and Polly Pickett, Larry and Catherine Roth, and Priscilla and Edgar Taft. In addition there were Charles Crothers, Howard Hamilton, Edith Jurka, Jerry Kaye, Ellen MacKenzie, Elias Marsh and Nick Spinelli. The Kaye's daughter, **Judy**, is a star on Broadway in "The Phantom of the Opera," and also one of the four performers at the first White House concert of the Bush administration. Shirley Kaye was spending the June 7th weekend in New York with Judy. Lloyd and Peg Felmly were warmly welcomed as part of our reunion. Butch started medical school with us, left during the first year to go into the Marines, returned after the war and graduated with the Class of 1950, but retained strong ties of friendship with members of our class. None of the five West Coast members came, nor Nora Harnden from Wales.

We all enjoyed the many medical and social affairs provided by the School of Medicine. We sat together for Friday evening dinner and Saturday lunch at Harkness Hall, and did a lot of catching up. We had our class dinner at the Quinnipiak Club on Saturday evening. Larry Pickett was the master of ceremonies, and each member in turn spoke about his or her present and past activities. We are an active group, even those of us who are no longer conducting a medical practice.

Most of us stayed on the same floor at the Colony Inn on Chapel Street. Nick Spinelli contributed a suite room where we all gathered informally between and after other activities. On Sunday the Corcorans, Countrymans, Frelicks, Jameses and Nick Spinelli drove to Edith Jurka's house in Croton-on-Hudson to have lunch and spend the day together. The house was constructed with a Faraday Cage and other facilities for her new career of conducting a training program for intuitive problem-solving.

1949

40th-year Reunion by Dr. Dan Elliott

The Class of '49 met for a grand and sentimental 40th reunion at the Graduates Club facing the Green Saturday night, June 10. We started early (6:00 p.m.) and stayed late. Yale's photographer was there as well as many of our own. For us this was the climax to Alumni Weekend.

There were 27 for dinner: 15 of our 46 remaining classmates, 11 wives and Bill Anlyan's Aunt Rose. Paul

Goldstein, our class secretary, arranged a choice dinner and presided. Paul and Betty live in New Haven where he practices pediatrics and is chairman of ambulatory services for St. Raphael's. We changed dinner partners for dessert, and then each rose briefly to comment on life after Yale.

Old secrets emerged from the Howard Avenue dorm (where the School of Nursing stands now)—we learned who put the peanut butter on the toilet seats! When someone told Bill Anlyan "Gee, you haven't changed a bit," he said it was true because at 19 he looked 64! Bill is now chancellor of Duke University and brought his wife, Jean, as well as Aunt Rose. Bud **Baldwin** flew in from Chicago, where he is setting up the AMA's computers for medical education and writing more than ever. Al Bacon and his wife, Joan, seemed relaxed after just retiring from his internal medicine practice. Gunnar Eng and Connie have five grown children. Two young granddaughters had Bill Bevis as their pediatrician. Gunnar is busy as head of a five-man group in internal medicine in Darien.

Nora Gordon has become a serious student of the Middle Ages since the death of her husband Henry Baird in 1987—he published more than 80 papers during his distinguished career as a neurologist. Dan and Maxine Halvorsen moved to a home on the Connecticut River after he retired, where he helps with the river patrol. Jack and Gene Harris flew in from Nashville on their way to fly-casting school—getting ready for Jack's impending retirement from cardiac surgery. Gordon Jensen managed a timely visit with his daughter who lives in New Haven. He just returned from four months on Bali and is writing a book about the trip—his third text. Jack and Sandy Miller came from Detroit, where he is chairman of the department of molecular biology and genetics at Wayne State. Tim and Barbara Nolan drove over from Greenwich, where Tim practices urology—a happy result of Dr. **Deming's influence. Dick and Mary** Otis have moved to Cape Cod to enjoy retirement after Dick's 31 years as a pathologist at Hartford Hospital. Julian Pichel has also retired after a career in psychiatry at the Stanford Clinic, but his wife Cici is enjoying her work as a marriage counselor. Charlie Rennell came as far, from San Jose, Calif., where he retired but occasionally consults in diagnostic radiology. He

was en route to his summer home on Lake Champlain. My wife, Betty, and I drove from Dayton, Ohio—we actually enjoy long auto trips since my retirement.

We had a telephone call with greetings from Larry Shulman and letters to read from many classmates: Martha Vaugh, Joel Ehrenkranz, Dan Rudman, Mary Agnes Wine, Carl Russell, Murray Rosenberg, Harry Tapp, Ted Gray, Bill Sewell, Bill Bevis and Vern Watley, who sent pictures of their five children as well as Vern and Margaret. It was a memorable evening and the prelude, we hope, to many more.

1954

35th-year Reunion by Dr. Eva Henriksen

Eva Henriksen was back to New Haven from Los Angeles for the first time since graduation. She arrived early and walked and walked, reacquainted herself with Yale and the city and concluded that she loved coming back. Also back for his first reunion was **Herb Lubs**, who came from Miami to see us and some of the sights, including his old home in Guilford; there was too little time to hear enough about his work on the genetics of dyslexias. Arthur Crovatto and Jan came for dinner; they were en route from York, Pa., to Martha's Vineyard. Walter Freeman had been nearby for a meeting, so before going back to neurophysiology in Berkeley he came to dinner too.

Edward and Peg Gerety combined Yale Alumni College and our reunion; he has retired from cardiovascular surgery in Albuquerque, and they continue to enjoy life vastly. Of the locals, Lowell Olson has surprised himself a bit by returning to the practice of obstetrics; earlier he had limited his work to gynecology. Jack Gariepy and Elaine also brought lots of cheer from Trumbull, Conn.; he says that he is an old-fashioned surgeon and that visiting house staff enjoy being on his service.

Frank Gruskay and Bette, looking ridiculously young, brought a folder of photographs that included some of our Aesculapian Frolics; most of us had forgotten the details! Completing the local scene were Tony and Jeanne Piccirillo; it was he who did the marvelous organization of the buffet supper on the Friday at Chez Bach in



The Class of '59 recalls the moment when they stood on these same steps on graduation day, three decades ago.

Branford, and then on Saturday, the class dinner at the Graduates Club. Don Kornfeld came from P&S for dinner too, and complete with that old enthusiasm was Herb Hurwitz (with Erica). John Rose had been at Hopkins for part of their centenary celebrations and was glad to leave Baltimore and to go North.

Our guest for dinner was **Arthur Ebbert**, who has just retired from the department of medicine and from the office of deputy dean; he had arrived at Yale as our group began its senior year, so it was marvelous having his comments.

We held a brief class meeting to discuss alumni fund affairs and to lay out proposals for meetings and reunions over the next 15 years; they are ambitious and we may well have one gathering on the West Coast and one overseas. This 35th was especially pleasant for us all, and we were sorry that more could not attend. There were messages and photographs, and they helped immensely to add more style to the two days.

1959

30th-year Reunion by Dr. Asa Barnes

When the Class of 1959 met for its 25th reunion five years ago, it set an alumni association record for the number returning. This year for our 30th, an even larger percentage of the Class of 1959 attended. Out of 72 members, 43 came to renew friendships in New Haven. The folks in the alumni office

continue to be impressed by our robust attendance: "Your class has more than double the number of registrants of any other class, and it isn't even a special year for you."

Much of the credit for this string of successful gatherings goes to **Nick** and **Mary Lou Passarelli**, who not only laid on the soirees, but also organized the Class of '59 phonathon, which made your life much quieter if you decided to show up.

Friday evening we undid months of oat-bran diet with lobster, melted butter, corn-on-the-cob, clam chowder and oysters on the half shell, plus the usual accourrements. The new Yale golf course clubhouse provided an informal atmosphere to share scrapbooks, memories of past *faux pas* on Fitkin III, and snapshots of graduating children and recently arrived grandchildren.

Saturday was filled with lectures, tours, meetings and the traditional tennis marathon at the Yale Bowl courts. We gathered that evening in the air-conditioned elegance of the Quinnipiak Club to feast on salmon or beef tenderloin and fresh asparagus (probably also from California). A live orchestra without a single amplified steel guitar played mostly '60s tunes for dancing, and **Professor Fenichel**'s samba exhibition.

During the break, Nick reviewed the class news gathered by the telephone crew, which consisted mostly of outrageous gossip. If you were not there, you can assume the worst when your name came up. Better start making plans for June 1994, so you can

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be there to defend yourself and laugh with the rest of us.

The attendees were: Carol and Bob Amick, Asa and Jean Barnes, Frank and Gwen Beer, Ed and Frannie Clayton, Sid and Phyllis Cohen, Marty and Louise Colodzin, Ron and Louise DeConti, Gerry Fenichel, Bob and Suzie Fisher, Paul Friedman, Bob and Lori Gonyea, Gerry and Lois Gordon, Bill and Joan Heydorn, Rich Hinckley, Len and Judy Inker, Bill and Ann Jablonski, John and Mary Ann Jasaitis, Ed Kaminskas, Herb and Nancy Kaufmann, Kris and Julie Keggi, Dave and Virginia Kingsbury, Ray and Sally Mark, John and Carol Marsh, Brian and Judy McGrath, Pete and Joy Molloy, Ron and Pat Morris, Jim and Sue O'Neill, Bob and Freda Ostberg, Nick and Mary Lou Passarelli, Jack Poglinco, Jim and Bunny Prokop, Jim Ralph, David and Joan Reed, Joe and Susan Saccio, Marc and Ann Schwartz, Dick Senfield, Dave and Ellie Skinner, Sandy and Naomi Solomon, Jim Stagnone, Leo and Mary Von Euler, Bob and Helen Whitney, Mimi and Dick Wolf.

The deceased are: Rog Atwood, Ed Call, Bob Davis, Bill Edwards, Rich Gershon, Phil Griffin, Arl Pond, Marv Shulman, Lois Tice, Tony Werner.

1964

25th-year Reunion by Dr. Joseph F. Curi

The highlight of the 25th reunion was, without a doubt, the return of **Sue Kimm** and **Bill Pratt**. The former is now a confident, outgoing and successful alumna and the latter is a model of civility and the best of what Yale can produce for academia.

Friday's class seminars had something for everybody—venereal disease, breasts, pelvic surgery and sex therapy—how little our focus has changed in the past quarter century.

Peter Gross, Chuck Vogel, Don Skinner and Remo Fabbri presented excellent, albeit pompous, reviews in their specialties.

The evening buffet at Harkness provided a friendly setting for early arrivees to discuss old times and new frontiers. Among those who braved the downpour were: Bob Lyons, Tom Cardella, John Haney, Bob Mitchell, Jim Murphy, Paul Lightfoot, Norm Scher, Tom Lentz, Doug Johnston, Steve Waltman, Skip Stilp, Bill



Dr. Joseph F. Curi, '64, has completed a two-year term as a board member on the Association of Yale Alumni in Medicine.

Knight, Barry Gault, Jack Rice, Tony Bravo and Sid Baker. Mother Yale was welcoming us back despite wrinkles, gray hairs, disenchantments and still-unpaid student loans.

Saturday's activities included the class tennis tournament won by Fabbri and Curi over Mitchell and Skinner. The class golf tournament was won by Rice over Skinner—of course.

The weekend spectacle ended with a gala class dinner at the charming but haunted New Haven County Medical Association House. Second-day attendees, who included Don O'Kieffe, Lew Landsberg, Lee Beger, Gordon Fairclough, Larry Horwitz, Diane Shrier, Dick Lee, Dick Linburg and Stan Rosenberg, behaved with guarded dignity.

Even unescorted alums—Mary DiGangi, Tom Snoke, Chris Hauge, Alfonso Esguerra and Bob Shelton—had difficulty in controlling their festive spirits.

Remo Fabbri, dinner chairman extraordinaire, hosted an endless parade of classmates with anectdotes into the wee hours of Sunday. The subject matter ranged from the sins of omission and commission in gross anatomy to an impassioned, reactionary plea to preserve the Yale System. The dining room also echoed with incomprehensible regional dialects, authentic African chants, a tragic sushi story, and memories of **Tishler**, **Malloy**, **Rusk**, **Briggs**, **Barchilon** et al.

After this unforgettable experience,

the Class of 1964, the worst class in the history of Yale medical school, was undoubtedly moved up a notch.

1969

20th-year Reunion by Dr. J.D. Robinson

The Class of 1969 met for its 20th reunion dinner at Mory's. Jody Robinson, internist and fledgling author in Washington, D.C., was accompanied by wife, Meg, and stood in for Dave Upton, class secretary, as dinner chair. Dave is a psychiatrist in Alexandria, Va. Leo Cooney, with wife Kathleen, was acclaimed the class historian, seeming to know something about everyone who was not in attendance. Dave Barry, director of research for Burroughs Wellcome, was there with wife, Gracia. Semi-retired real estate entrepreneur Seth Charnev resides in both San Francisco and New York when not doing occasional psychiatry locum tenens scattered around the country.

Ralph Falkenstein came from nearby Brookfield, Conn. Steve and Wendy Herzberg, Arnie and Nancy Mazur, as well as Steve and Dottie Webb, added to the festivities. Tom Howard, with wife Paula, admitted that he is able to eke out a living as a vascular surgeon in Omaha. Lee **Jampol**, accompanied by wife Carol, tried vainly to abdicate the position of class agent, a move which was not accepted by the class. Lee is chairman of the department of ophthalmology at Northwestern University Medical School. Ellen and Len Milstone filled the group in on recent changes at Yale. Ellen has just opened a private dermatology practice.

Rich and Victoria Pollis ventured east from Santa Monica, where Rich is a partner in a mega-facility for orthopedics and rehabilitation. Jonelle Carey Rowe and husband David came down from the University of Connecticut, where she is a neonatologist. Sam and Andrea Schnall reported that they are happily ensconced in Cleveland, where Sam is doing endocrinology. Carolyn Wells was reinstalled into the Class of 1969 as an honorary member. She holds an M.P.H. from Yale and is also a faculty member.

The following classmates did not attend, but wrote us of their lives and habits, the latter of which we cannot divulge. Lionel Nelson is an ENT man in San Jose; David Schulak and Lutz



Dr. Gerard N. Burrow, '58, vice chancellor and dean of the UC San Diego medical school, shares his experience at an Alumni Weekend forum on medical education.

Schlicke practice orthopedics in Tampa; Gary Farnham directs a San Francisco Bay area emergency clinic; Gary Wright has a position in the student health department at Oregon State; Mike Toren is a cardiologist in Oregon. Charles Dinarello is a professor in the pediatrics department at Tufts; Charles Angell practices internal medicine and cardiology in Baltimore and is affiliated with Johns Hopkins. Jerry Smallberg got married (Diane) and is writing screenplays and novels when he's not practicing neurology at Lenox Hill Hospital.

Rowena Lichtenstein Korobkin is chief of pediatric neurology at Pacific Presbyterian Medical Center in San Francisco. Dennis Rudzinski is an anesthesiologist in Richmond. Tim Pedley is a professor of neurology at Columbia in New York. Lloyd F. Mercer has established a solo orthopedics practice in Hope, Ark. News from Debbie Putnam is that she married on May 20 of this year to Robert Laguens in Maui, Hawaii. Anna Solis Gail wrote that she is a radiologist, part-time marathon runner and mother of three.

The group looked remarkably fit for 20 years out, and we look forward to seeing everyone at the 25th reunion.

1974

15th-year Reunion by Dr. George H. Talbot

Leon's Restaurant was the scene for a small but enthusiastic gathering of the Class of '74. Doug and Sheryl Berv had the shortest trip—from their home in Bethany, Conn. Doug practices psychiatry in New Haven and also teaches at Yale. Lenny and Liz Banco drove down from West Simsbury, Conn. Lenny is assistant director of pediatrics and director of pediatric ambulatory services at the University of Connecticut. Also at UConn is Mike Gerber, director of pediatric infectious diseases. Mike spent 1987-1988 in New Zealand pursuing his interest in streptococcal disease.

From Boston came Jim and Peggy Strom, Ary and Ellen Goldberger, and Dick Pasternak. Jim, chief of nephrology at St. Elizabeth's Hospital, was just chosen "Teacher of the Year"

at Tufts. Dick is director of CCU at Beth Israel and was instrumental in recruiting Ary from San Diego to be co-director of the arrhythmia and ECG laboratory at B.I.

Also representing the world of cardiology was **Jamie Robertson**, '75, a private practitioner at Arlington Hospital in suburban Philadelphia. Jamie's wife, **Annie Richardson**, also made the trip. Rounding out a strong showing from the 61 Shell Avenue contingent (Jim, Dick, Jamie, Annie) was yours truly, currently associate professor of medicine in infectious diseases and hospital epidemiologist at the University of Pennsylvania.

Honors for furthest traveled went to **Bob Bell**, '75, who came from New Mexico via a stop in Philadelphia, and **Marie Kelly**, who flew in from Fort Worth, Texas. Bob and his wife **Stirling Puck**, '75, live in Santa Fe, where he practices hypothalami and she has pursued a variety of interests in human genetics. Marie is currently taking a break from the practice of ob/gyn.

Heard from/of but not present were **Bruce Blumberg**, currently making

genetics rounds in the Bay Area, who reported a "conflict" with a trip to Hawaii; Hal Strelnick, director of family practice at Montefiore in New York City; Carol Teitz, acting chief of sports medicine at the University of Washington and author of a recent tome entitled: Scientific Foundations of Sports Medicine; Mike Eshelman, practicing at the University of Washington Student Health Service; and Dan Rosenthal, chief of bone radiology at Massachusetts General Hospital.

It was a fun evening—let's have a better turnout for our 20th!

1979

10th-year Reunion *No report submitted.*

1984

5th-year Reunion by Dr. David I. Astrachan

The Class of 1984 enjoyed a small but enthusiastic turnout as we were

hosted by the Class of 1934. Alumni traveled from as far away as California—Sabra Jones, who is doing a residency in radiology after learning how to develop her own films while in the Public Health Service—and as near as New Haven. Boston sent down Dominic Pennachio who is now in private practice in internal medicine, while up from Philadelphia came Jay **Kostman**, who took time out from scoping and his GI fellowship. Aron Wahrman got a few hours off from his plastic surgery fellowship. He and his wife drove past New York City and were joined by Paul Rothman, who is on the academic track at Columbia and is an assistant professor of rheumatology/immunology Marnin Merrick also is in New York—as a hematology and oncology fellow, after finishing his internal medicine residency at New York Hospital. The rest of us did not have so far to go. David Astrachan just joined a private practice in ENT in New Haven, Paul **Snyder** is completing his chief residency in urology, and he and his wife, Mary Beth, just had a little girl.

Bruce Haffty is on the faculty at Yale in the department of radiation therapy. Also on faculty is **Susan Baserga**. Her husband, Peter Glazer, could not attend as he was recuperating from knee surgery. He is one of Bruce **Haffty**'s residents in radiation therapy. I saw Peter recently, and he looked very fit, walking without difficulty. Leonard Bell also on the full-time faculty at Yale, in cardiology. David Frank is getting rave reviews as one of the chief residents in internal medicine at Yale. Robert (Bob) Havlik, who thought he was going to be in the lab this year, is now a plastic surgery fellow at Yale. Ellen Heyneman, after completing a pediatric residency, is now at the Child Study Center in child psychiatry. Ana Salazar is finishing up in radiology, and her husband **Dan** Kolansky is a cardiology fellow. Kathleen Maurer is a fellow in occupational health at Yale. Hope to hear from those who could not attend. We look forward to a terrific 10th.



Members of the Class of 1984 enjoy the first of many reumons

1988-1989 ALUMNI FUND REPORT

From the Medical School Alumni Fund Chairman

The results of our annual giving campaign have been most heartening. We rebounded from our financial dip of the previous campaign, and, although we only reached 83 percent of our goal, we exceeded last year's total. We succeeded in raising \$538,087.

Unfortunately, our participation remains mired at 39 percent. To increase this number, we plan a three-fold approach:

- 1. We will solicit fourth-year medical students for a token gift, so that they may become accustomed to include the Medical School Alumni Fund in future giving. This is a long-term strategy.
- 2. Class agents will personally solicit the "never givers" and "occasional givers" for a gift of any size. This will be done over a three-year period.
- 3. We plan to establish a new category of giving for a named scholarship. Details will be forthcoming shortly in a direct letter to you.

We are gratified with your response to the Sterling Associates classifications, and we urge you to consider them carefully when you make your gift. They are printed on the reverse side of your pledge card. We also continue to solicit contributions in memory of deceased friends and classmates through the In Memoriam Program.

We congratulate those classes that have achieved 75 percent or more participation: William Cohen, Class of 1923; David Raskind, Class of 1924; Michael D'Amico, Class of 1931; and the Class of 1922. We are hoping that this list will grow.

Our alumni fund director, Claire Lauterback, left us in June to begin a new life in New York City. Those of you who have worked with her, or who have had contact with her, remember her pleasant personality, willingness to help and extraordinary capabilities. We all wish her well.

We also welcome our new director,



Dr. R. Leonard Kemler, '43

Monica C. Robinson. She comes to us from the development office at the School of Organization and Management, and has already impressed me with her personality, initiative and energy. We look forward to many successful campaigns under her guidance.

I would be remiss if 1 did not also thank J. Roswell Gallagher and Samuel D. Kushlan for their excellent work as co-chairmen of the Bequest and Endowment Fund. Their success is manifest in the continued growth of the fund.

Dr. Kushlan also has continued to increase both the percentage participation and the dollar amount in the former house staff category. We are bringing our lists up-to-date, and have been gratified by the interest that former house staff officers show in our School.

Lastly, thanks are due to the class agents who have worked so diligently, to the volunteers who have manned the telephones, and to the alumni/ae, former house officers, parents and friends who have given so freely for financial aid to the students at the Yale School of Medicine. Best wishes for a pleasant year.

Dr. R. Leonard Kemler, '43 Chairman

Message from the Dean

I would like to offer a word of thanks to Yale medical alumni for renewing their tradition of increased giving to the Medical School Alumni Fund. Your response during the last fiscal year is particularly gratifying, coming as it does after a small decrease during 1987-1988; that year we concluded our Capital Campaign, which was successful in no small part due to alumni generosity.

Alumni fund contributions, which the School designates for student financial aid, benefit those who need it most. This year, the annual cost for medical student tuition and expenses will reach \$25,000. This starkly brings into focus how important it is for alumni to continue their commitment to keeping a Yale medical education within the reach of all our students, regardless of financial circumstance.

This spirit of cooperation has been well served by the example of Chairman Leonard Kemler, his alumni fund board and the many class agents; their dedication is reflected in the time and talent they have shared with their School. Our fund-raising success also owes much to former alumni fund Director Claire Lauterback, who moved to New York during the summer. Our best wishes go with her and her new husband as we welcome her successor, Monica Robinson, to this important post.

Looking to the future, we can see that the difficult question of how best to advance the art and science of medicine will become even more complex. I commend the growing number of alumni who today have taken an important step toward addressing this challenge by affirming their support for—and partnership with—the physicians of tomorrow.

43

Dr. Leon E. Rosenberg Dean

Medical School Alumni Fund Class Participation

		1987-1988		1988-1989	
CLASS	AGENT	TOTAL	% PART.	TOTAL	% PART.
1922 and pric	PΓ	\$ 1,621		1,811	
1923	William Cohan	592	100	642	100
1924	David Raskind	101,147	100	*10,284	100
1925	Alice Whittier	2,442	56	531	56
1926	Maxwell Bogin	365	40	542	60
1927	Harry Zimmerman	4,451	78	1,038	67
1928	Lewis Scheuer	3,090	80	53,518	60
1929	Paul McAlenney	1,464	67	*1,358	67
1930	J. Edward Flynn	20,961	71	12,957	53
1931	Michael D'Amico	1,329	64	4,494	79
1932	Henry Brill	3,588	52	5,865	63
1933	Franklin Foote	1,894	71	1,607	57
1934	John Ogilvie	4,302	69	*4,389	62
1935 1936	James Haralambie	6,391	55 32	6,454	57
1936	Frederick Post	3,082	50 50	23,677	23
1937	Wilbur Johnston Nelson Ordway	1,364 *5,472	80	1,904 2,136	50
1939	Rebecca Solomon	6,459	67	*19,301	56
1939	James Ferguson	9,283	64	9,178	71 58
1940		2,665	57		
1941	Charles Cheney Walter Burdette	3,603	69	4,702	66
1942 1943A	Dorothea Peck	*21,067	81	3,829	56
				4,232	67
1943B	S. Brownlee Brinkley	*4,462 25,520	<u>66</u> 73	3,399 7,631	_5
1044	Michalas Cainelli	25,529	73 70	7,631	59
1944 1945	Nicholas Spinelli Richard Breck	6,574 3,345	51	*46,770 3,850	73
1943 1946			64		53
1946 1947	Thomas Whelan	9,834	54	9,196	52
1947	W. Roy Breg Paul Koehler	4,810 *12,238	60	7,764 7,288	57 46
1948	Daniel Elliott	3,540	58	*5,951	70
1949	David Frucht	8,516	58	12,523	
1950	Lowell Goodman	8,736	43	8,479	64 45
1951	Harvey Young	5,086	39	5,770	40
1952	Vincent Gott	4,835	53	6,355	51
1953	John Rose	4,609	58	*8,237	70
1955	Robert Kramer	5,746	63	6,405	63
1956	John Gardner	7,335	49	10,346	54
1957A	Harry Briggs	3,460	57	2,975	59
1957B	Howard Minners	4,185	<u>75</u>	3,515	61
17376	Howard Minners	7,645	66	6,490	60
1958A	Andrew McGowan	11,795	71	7,414	68
1958B	Paul Rudnick	4,750	58	3,985	<u>58</u>
1,505	- war readmen	*16,545	<u>65</u>	11,399	63
1959A	Asa Barnes	5,948	74	7,094	64
1959B	Muriel Wolf	5,296	<u>59</u>	5,798	<u>59</u>
		11,244	67	*12,892	62
1960A	Victor Altshul	3,409	62	3,536	50
1960B	Thomas Kugelman	3,780	<u>58</u>	4,275	<u>52</u>
		7,189	60	7,811	51
1961A	Robert S. Briggs	3,110	50	3,575	54
1961B	Anoush Miridjanian	3,655	<u>53</u>	<u>3,925</u>	<u>54</u>
	3	6,765	51	7,500	54
1962A	A. R. Pschirrer	2,880	54	1,580	34
1962B	Frederic Cantor	6,998	<u>38</u>	<u>2,527</u>	<u>38</u>
		9,878	47	4,107	36
1963	Craig Llewellyn	*18,369	46	7,971	35
1964A	William J. Houghton	3,845	50	4,360	51
1964B	William Pratt	_7,400	<u>76</u>	_9,800	<u>71</u>
		11,245	63	*14,160	61
1965	David Hill	6,391	52	5,544	47
1966A	Mary Alice Houghton	5,730	69	2,775	51
1966B	Gary Townsend	<u>2,390</u>	<u>48</u>	<u>1,885</u>	<u>42</u>
		8,120	59	4,660	47
1967A	James Dowaliby	2,295	50	4,204	57
1967B	Anthony Lovell	<u>5,210</u>	<u>71</u>	5,935	<u>76</u>
		7,505	61	10,139	67
1968A	Frank Lucente	4,802	53	3,627	43
1968B	Donald Lyman	<u>_6,104</u>	<u>74</u>	<u>3,852</u>	<u>64</u>
19000	Donald Lyman	*10,906	63	7,480	53

1969	Lee Jampol	7,795	58	*11,088	63
1970	James Missett	4,256	45	4,922	38
1971A	John Cieply	4,614	52	3,438	52
1971 B	Barbara Kinder	4,845_	<u>57</u>	4,175	<u>57</u>
		9,459	55	7,613	44
1972	Harry Malech	9,404	50	10,108	47
1973A	Lee Goldman	1,190	48	1,425	39
1973B	John McQuade	1,751	48	3,740	35
1973C	Jerrold Rosenbaum	1,510	46 46	1,725	<u>46</u>
17730	Jerrola Rosenbaum	*4,451	48	6,890	40
1974A	Amy Cahaahtar	1,345	45		
1974A 1974B	Amy Schechter	1,343 1,130		1,955	49
1974B	Robert Schechter		<u>31</u>	1,385 *3,340	32
10751	D : 1D :	2,475	38	*3,340	40
1975A	Daniel Passeri	975	19	1,410	23
1975B	Mary Jane Minkin	1,348	<u>24</u>	1,304	<u>18</u>
		2,323	21	2,714	20
1976A	William Levy	1,755	25	2,540	32
1976B	Robert Taylor	<u>1,800</u>	<u>40</u>	<u>2,275</u>	<u>46</u>
		3,555	29	4,815	36
1977A	Attilio Granata	1,335	24	610	24
1977B	Ronald Vender	1,385	<u>38</u>	1,205	<u>44</u>
		2,720	30	1,815	34
1978A	Duke Cameron	2,345	34	2,325	26
1978B	Seth Powsner	310	33	415	33
1978C	Thomas Smith	<u>865</u>	<u>42</u>	_280	<u>50</u>
13760	Thomas Smith	*3,520	35	3,020	30
1979A	Jeffrey Kaine	1,190	34	1,190	40
1979B	Cynthia Sherman				
19790	Cylinia Sherman	1,450	<u>31</u>	1,245 *2,435	<u>31</u>
1000 4	Educate Attende	2,640	33	*2,435	35
1980A	Eduardo Alfonso	1,215	35	1,020	29
1980B	Cesar Molina	<u>720</u>	31	<u>725</u>	<u>30</u>
		1,935	33	1,745	30
1981	Anthony Urbano	1,325	21	1,125	23
1982A	Muriel Cyrus	250	10	95	7
1982B	Jed Gorlin	275	28	330	44
1982C	S. Wolf-Rosenblum	<u>270</u>	<u>32</u>	<u>335</u>	<u>29</u>
		795	20	760	23
1983A	Michael Tom	337	12	324	16
1983B	David Schwartz	<u> 265</u>	<u>29</u>	<u> 205</u>	<u>26</u>
		*602	18	529	20
1984A	Hingge Hsu	420	33	675	32
1984B	Jay Kostman	<u>200</u>	<u>11</u>	_385	<u>18</u>
	,	620	23	*1,060	25
1985A	Robert Higgins	125	11	1,000	23
1985B	Fred Santoro	305	34	786	32
1985C	Javier Vizoso			760	32
17050	Javiel Vizoso	<u>125</u> 555	<u>29</u> 23	786	22
1986A	Eric Bernstein	130		95	32
1986B	Clinton Lindo		15		7
		130	19	220	7
1986C	Eric Suan	65	<u>18</u>	60	<u>14</u>
100=1		325	17	375	9
1987A	Barry Weinstock	1,057	27	237	26
1987B	Subba Gollamudi	50	11	2,070	22
1987C	Mindy Schuster	135	19	175	23
1987D	Mark Widmann	<u>70</u>	<u>10</u>	<u>70</u>	<u>11</u>
		1,312	17	2,552	21
1988A	Michael Mockovak			59	26
1988B	Susan Valley			90	17
1988C	Hedi Zaghi			149	16
	-				

	1987-1988				1988-1989			
	NUMBER SOLI- CITED	NUMBER CONTRI- BUTED	PERCENT PARTICI- PATION	TOTAL	NUMBER SOLI- CITED	NUMBER CONTRI- BUTED	PERCENT PARTICI- PATION	TOTAL
Alumni	3,650	1,680	46	\$478,166	3,687	1,609	44	\$484,848
Former House Staff	1,002	226	23	24,680	1,002	276	28	31,436
Parents/ Friends	432	78	18	8,216	432	88	20	12,256
Interest/Miscellaneous	_	_	_	_			_	11,558
TOTAL	5,084	1,984	39	\$522,698	5,121	1,973	39	\$540,098

CONTRIBUTORS 1988-1989

The names and data included on the following pages were provided by the Yale Medical School Alumni Fund and reflect contributions made between July 1, 1988 and June 30, 1989.

MEDICAL SCHOOL ALUMNI

1858

T. Beers Townsend*

1906

Charles R. Mitchell*

1008

Michael A. Parlato*

1912

Walter Clark Tilden*

1013

Ralph Emerson Taylor*

1916

Ernest Russell*

1010

Willys M. Monroe*

1920

Oscar Brenner*

Maurice Grozin* Chester E. Hurwitz* Helen P. Langner

1923

William Cohen Julius Anthony Olean* Hyman W. Weinstein*

1924

John J. Batchelor David M. Raskind Myron A. Sallick* Harold T. Vogel

1925

Dorence S. Cowles Waldo F. Desmond*

1925

William E. Hall Samuel Reback Eli Hyman Rubin* Welles A. Standish Alice A. S. Whittier

1926

Stanton T. Allison* Maxwell Bogin William H. Hahn* Joseph L. Hetzel* Ben Klotz Joseph T. Matteis

1927

Wallace Robert Bostwick* Henry Irwin Fineberg* John Martin Freiheit* Donald F. Gibson Albert Jablonsky Nathan Levy* William C. Meredith Alfred F. Seibert Theodore H. Sills Harry M. Zimmerman

1928

Max Alpert*
Sheldon A. Jacobson
Edward P.J. Kearney
Ralph E. Knutti
R. Harold Lockhart
Edward W. Ludwig*
Nathan E. Ross
John M. Russell*
Alvin A. Schaye*
Lewis A. Scheuer

1929

James Rae Arneill Jr.* John M. Bailev* John W. Cass Jr. Frank H. D'Andrea Robert A. Frisch George S. Goldman Alexander O. Haff* John A. Hangen Tony Liebman Rakieten* William Frederick Roth Jr.* Russell B. Scobie Robert Tennant Newell Raymond Washburn* Julius G. Weiner* Mahel Wilson

1930

Daniel N. Beers*
Frederick Fitzherbert Boyce
Charles A. Breck*
Lewis Dickar*
Vincent A. Doroszka*
Knox H. Finley
J. Roswell Gallagher
Amy H. Hunter-Wilson
Edmund L. Kitzmeyer
Moses D. Lischner*
James Merriman Lynch*
John W. Maroney
John C. Mendillo
Paul Watson*
Charles L. Wood

1931

Henry H. Briggs Jr.
Benjamin Castleman*
Michael D'Amico
Helen R. Gilmore
Paul A. Harper
Harold E. Harrison
Morris Heller*
Thomas C. Jaleski
Rhoda M. Mickey
Nelson Newmark
James W. Reed
Abraham J. Schechter
James A. Stringham

1932

Louis K. Alpert Reginald V. Berry Henry Brill Frank Carroll Clement C. Clarke Hester B. Curtis Joseph P. Donnelly Lee E. Farr Thomas E. Farthing* Lewis F. Foster Conrad R. Lam Arthur J. Present Elizabeth M. Ramsey Benjamin N. Tager Rudolph E. Vandeveer Myron E. Wegman Roland T. Wehger*

1933

Myron J. Adams*
Fred W. Buse
Warren P. Cordes
Franklin M. Foote
Daniel Foster Harvey*
George K. Hirst
John G. Martin
Raymond E. Miller
Ashley Pond III*
Edwin B. Seelye*
Sidney Stringer*
John J. Wolfe
Francis M. Woods

1934

Frederick Beck
James F. Blades
Francis P. Guida*
Knowles B. Lawrence
Herbert C. Miller
Edward Thomas O'Donnell*
John B. Ogilvie
Lucien M. Pascucci
Harry Sherman
William R. Willard
George Zalkan*

1935

George A. Carden Jr.
Edgar S. Childs
Edward F. Falsey
H. Hoffman Groskloss
James Quintin Haralambie
W. Howard Horner
Mildred Hartshorn January
Samuel D. Kushlan
Donald P. Morris*
Norman E. Peatfield
Norman P. Rindge
Milton Rose*
Clark P. Searle
Walter A.L. Thompson

1936

Albert W. Diddle Margaret C. L. Gildea George A. Hahn* Louise G. Hutchins Frederick A. Post Margaret Sommers Morris Tager Edgar W. Warren

1937

Edmund R. Blower William G. Cooper Jr. David A. Dolowitz Joseph B. Hollinshead Wilbur D. Johnston Alfred E. King Dunham Kirkham Julia Mehlman James P. Morrill Alan A. Rozen Morgan Sargent Albert D. Spicer John M. Thomas Jean Wells

1938

Roy N. Barnett
S. Charles Kasdon
John J. McGillicuddy
Nelson K. Ordway
Charles J. Petrillo
Edward W. Pinkham Jr.
James Radcliffe Jr.
George E. Roberge
Lester J. Wallman
J. Richard Zahn

1939

W. Sterry Branning Stephen W. Collins Jr.* Harold H. Coppersmith Norman L. Cressy William H. Druckemiller Robert Goodfellow Ernst* John P. Ferguson Jr. Joseph B. Forman S. Jerome Greenfield Margaret A. Lennox Ward J. McFarland James Peter Murphy Russell Nahigian3 Douglas S. Riggs Roger N. Ryley Ernest L. Sarason Rebecca Z. Solomon John D. Tobin Arthur S. Tucker Darrell G. Voorhees Douglass W. Walker John H. Wentworth Malvin F. White

1940

Theodore E. Allen Joseph V. Baldwin Ronald S. Beckett Jack S. Blaisdell Philip S. Brezina David Crocker* Richard E. Dormont Robert M. Dunlap James F. Ferguson Jr. Eugene J. Fitzpatrick Jr. Henry D. Humphrey H. Stuart Irons Donald G. Johnson Ira D. LeFevre Jr. Paul D. MacLean **Edward Martin** Maurice Ross* W. Norman Sears* Joseph E. Sokal* J. Champneys Taylor Patricia E. Wanning Helen H. Woods

1941

Robert H. Alway Robert H. Areson W. Randal Bell Knute E. Berger

William A. Carey Joseph P. Carson Jr. Charles B. Cheney Herbert W. Diefendorf Robert F. Dine* Peter A. Duncan Floyd D. Flint John Franklin Robert L. Gilbert Frederick P. Glike Sidney L. Lasell William Lee Biorn Lih F. Eugene Martin Willys M. Monroe Malcolm C. Murfitt Edward B. O'Connell Gioacchino S. Parrella David V. Pecora Irving Waltman

1942

William E. Bloomer James M. Bunce Walter J. Burdette Robert E. Carroll Vincent J. Collins David G. Decker Hendrik DeKruif Davitt Felder Elihu Friedmann Allan V.N. Goodyer* William Harrison Jr. Leo Kellerman John R. Lincoln Patrick S. Mullins* Dean Nichols* Michael A. Puzak Lois Knight Rogers Charles F. Scholhamer Richmond W. Smith Jr. Edgar B. Taft Maurice Tulin Francis P. Vose* Irving Norman Wolfson Class of 1942 In Memoriam Fund

1943A

Ralph D. Alley John R. Brobeck Lycurgus M. Davey Donal L. Dunphy R. M. Fasanella Edward Douglas Horning* R. Leonard Kemler Joseph P. Kriss Jonathan T. Lanman* Douglas Lindsey J. Philip Loge Henry E. Markley Walter J.J. Nero Dorothea R. Peck Edward F. Rabe Henry A. Riedel Bernard R. Rowen Marcus E. Sanford Robert A. Sears* Hilliard Spitz Nicholas M. Stahl Robert J. Staub Sophie Trent Stevens Oliver G. Stonington Frederick A. Waldron John J. Weber Robert H. Wyatt





Checking up on the progress of women at the School of Medicine.

1943B

John R. Almklov David G. Borden James L. Bradley* S. Brownlee Brinkley Henry B. Bruyn Jr. Thomas L. Bucky Jane B. Cadbury Philip B. Chase Hunter H. Comly Norman I. Condit Ronald W. Cooke Joseph I. Epstein Robert H. Furman Victor C. Hackney Henry H. Jones Joseph F. Kell Sawyer E. Medbury Hoyt B. Miles Jr. Benjamin R. Robinson Jr. Donald W. Seldin Francis A. Spellman*

Carl E. Andrews Edward J. Conway John C. Coolidge George B. Corcoran Jr. Frank W. Countryman Lawrence S. Crispell Charles H. Crothers Lawrence G. Crowley John H. Doherty Robert W. Frelick Carol Goldenthal Charles A. Hall Robert I. Hinkley W. Raymond James Ward S. Jenkins

Edith M. Jurka Jerome J. Kaye John Weaver King Frederick F. Krauskopf Elias J. Marsh Katharine Hawley Martin Nora Harnden Mason Joseph Massaro A. Reese Matteson Russell R. Monroe Lawrence K. Pickett Laurence G. Roth Haynes W. Sheppard Sarah P. Sherwood Eugene Smith Nicholas P.R. Spinelli Priscilla Dienes Taft Anthony Varjabedian Calvin Watts Woodruff* Reuben Zucker* Class of 1944 Medical Scholarship Fund

George Howard Allison Albert S. Atwood Frederic M. Blodgett Richard W. Breck Louise H. Burr Alice Shepard Cary Jay B. Cohn Edward M. Daniels Richard R. Dyer Robert S. Easton Alice Dershimer Friedman Raymond A. Gagliardi James D. Gardam Philip S. Good Herbert S. Harned Jr.

Paul W. Hoffert O. Roger Hollan Hans R. Huessy Raymond E. Lesser Mark McD. Lindsey James R. Mason George W. Naumburg Jr. Richard M. Peters Charles E. Sherwood Joseph R. Stanton Kenneth C. Steele

Margaret J. Albrink Franklin C. Behrle Sanfurd G. Bluestein Linus W. Cave Thomas J. Coleman James F. Cooney* Edward F. Edinger Martin E. Gordon Charles Sheldon Judd Jr.* Benjamin F. Kitchen Jr. James A. Kleeman Vincent J. Longo Richard Hess Mann* Thomas J. Mathieu Hugh J. McLane Joe D. Morris John H. Morton Vincent Pepe Francis G. Reilly* David H. Riege Phillips E. Roth Julian A. Sachs Donald P. Shedd Richard G. Sisson R. Bruce Thayer Robert R. Wagner

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George R. Barnes Jr. Albert W. Bostrom Jr. John E. Bowers W. Roy Breg Jr. M. Richard Carlin John C. Carpenter Charles R. Cavanagh Jr. Robert A. Chase Amoz I. Chernoff William F. Collins Jr. Bradford S. Colwell Robert P. Darrow Owen W. Dovle Franklin Harold Epstein Edward Foord* Frank L. Golbranson Frank H. Horton Robert J. Kerin Richard P. Levy Brock Lynch Victor A. Macheinski Charles L. Mache Jr. William K. McClelland Robert F. Newton Myron K. Nobil Lawrence C. Perry* Philip H. Philbin Olive E. Pitkin Irving Rudman Igor Tamm Patricia B. Tudbury Ellis J. Van Slyck M. Henry Williams Jr.

1948

Russell J. Barmett George F. Batten Edith M. Beck Jonathan S. Bishop Richard Steele Buker Jr. Arthur L. Coleman Jr. Ruth E. Cortell G. Robert Downie Elizabeth Fuller Elsner Albert A. Fisk Boy Frame* Julian Frieden Paul S. Goldstein Allan Green* B. Herold Griffith Sylvia Preston Griffiths Richard M. Hannah Paul B. Koehler Robert E. Lempke Lewis P. Rowland Benjamin F. Rush Jr. Gabriel A. Saviano* Jerome H. Shapiro Jessie Parkinson Spear Anne G. St. Goar Paul Talalay Paul Woodbury Weld

1949

William G. Anlyan Alfred E. Bacon Jr. William D. Bevis Jonathan S. Bishop Thomas L. Chiffele Mary Pucci Couchman Phillip G. Couchman

*Deceased

N. Joel Ehrenkranz Daniel W. Elliott Gunnar O. Eng Albert A. Fisk Eleanora C. Gordon Frederic W. Gray Jackson Harris Frederick R. Hine Halsted R. Holman Benjamin A. Johnson Orval I. McKay Richard D. Otis Julian I. Pichel Edmund L. Piper Charles L. Rennell Jr. Murray Z. Rosenberg Daniel Rudman Carl M. Russell William H. Sewell Lawrence E. Shulman Harry G. Tapp Martha Vaughan Vernon T. Watley Mary-Agnes P. Wine

Russell N. Anderson Sylvia L. Axelrod Malcolm A. Bagshaw John E. Borowy William H. Bucher Alvin Davis Claude W. Delia Marie C. Duncan Kent Ellis Thomas J. Ferraro Jr. David A. Frucht Carl A. Gagliardi Archie James Golden* Lucian S. Lapinski Sidney S. Lee Janus C. Lindner Margaret S. Lyman Harold March Harry L. McClelland Marina P. Meyers* John H. Meyers Orlando J. Miller Robert Edward Quinn* Cynia B. Shimm Jane B. Shumway Martin E. Smith* John S. Strauss B. Lionel Truscott Myra D. Tyler Frederick Edward Vultee* Class of 1950 Medical Fund

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New AYAM Leaders Take the Reins

At the annual meeting of the Association of Yale Alumni in Medicine held on June 10, 1989, Dr. Dwight F. Miller, '56, presided at his last meeting as president and thanked officers and members of the executive committee whose terms had expired.

Members completing two-year terms included: Drs. Joseph F.J. Curi, '64, Alexander R. Gaudio, '63, and Patricia E. Wanning, '40. They are replaced by Drs. Sharon L. Bonney, '76, Jay H. Hoofnagle, '70, and Nicholas N. Passarelli, '59.

Completing three-year terms were: Drs. Richard V. Lee, '64, and Gilbert F. Hogan, '57, replaced by Drs. Lycurgus M. Davey, '43, and Gioacchino S. Parrella, '49.

The newly elected president is Dr. Thomas P. Kugelman, '60. Dr. Muriel D. Wolf, '59, replaces him as vice president, while Dr. Gilbert F. Hogan, '57, takes Dr. Wolf's place as secretary.

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From the Public Health Alumni Fund Chairman

The 1988-89 campaign fell short of its goal, but one major accomplishment was achieved: The first \$19,960 raised during the campaign was applied to complete the goal of creating three departmental scholarships in honor of John D. Thompson, professor emeritus. Faculty and public health alumni are now developing eligibility criteria for the scholarship.

Important decisions about public health at Yale were reached this year that will hopefully help the fund drive next year! The Turner committee completed its report recommending the continued existence of the



Stephen Skorcz, M.P.H. '70

public health program as a department of the School of Medicine and a new chair and associate dean for public health was named: Burton H. Singer, Ph.D.

With the cloud of insecurity concerning the future of public health at Yale behind us, I hope the fund can excel next year. This year, 598, or 28 percent, of public health alumni gave almost \$40,000 to the drive, falling \$15,000 below our goal. Despite this drop, I do wish to congratulate those classes and class agents who passed \$1,000 per class:

Amount	Class	Agent
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\$1,305	1969	Robert Young
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\$1,120	1973	Gary Dean Sax
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\$1,010	1952	Yolande Lyon

Lastly, I wish to thank all of you who gave to the fund. In the face of uncertainty about the program, the majority of you did not hold the University hostage to your beliefs but rather viewed giving in light of what a Yale education has given you. I compliment you for this act of civility and reasonableness.

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1978 David S. Abernethy Kathleen M. Berman Robert J. Fensterheim Janice F. Gold David W. Houck Margaret Long Karis John Mauro Jr. Christopher M. Maylahn H. James Myers David W. Osborne Ellen J. Reifler Ellen D. Rothberg Karen Wolchuck Sher Alan J. Siniscalchi Marie Stoeckel Bernadette S. Vissani R. Bradford Walker Lucy Ellen Weiger

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1980

Phillip R. Aaron Gary J. Aboff Frederick R. Aronson Diane Denis Ave Curtis S. Breslin Antoinette M. Brooke Richard L. Buck Deborah J. Carr Ellen B. Greif Kristina Marie Obom Haldarelli Irwin J. Halperin Samuel S. Hamilton Virginia S. Humphrey Helen E. Kelly Yee-Lean Lee LeRoy F. Ludwig James S. Marks Jane Ungate O'Connor Ann L. Prestipino Kathleen M. Scribner Lydia A. Selling Marsha L. Silverman Rhona Weiss R. Blake Whitaker Jr. Marie L. Zanotti

1981

Nancy R. Angoff Donna A. Brenn Harold J. Burdo Jr.

Kimberly J. Chauncey Rollin C. Chew Angelo J. De Vita Brian J. Folev Kristen H. Forrest Richard T. Forsley Ellen M. Gallagher Marie F. Gavula Louis M. Gonzalez Joan Urquhart Goodman Susan E. Jennings Thomas J. Krause Jill L. Lapides Mary E. Papke Barbara Gaugler Pennebaker Frederick V. Peterson Jr. Elizabeth N. Shapiro Karin Swanson Keith D. Tait Nancy Schlesinger Weiss Jamie L. Amaral Martha Livingston Bruce Francis L. Crowley Gretchen S. Dieck Marilyn A. Folcik

1982

Doris Gordon James L. Hadler Nancy Conlee Hart Karla A. Hitchcock Constance M. Jarowey Charles A. Klivans Ann Storms Kloter Michele A. Laden Linda F. Mc Caig William F. McKeon Jean L. Milton David L. Mork Erica Pifer Susan G. Poland Sally R. Rinaldi Dale A. Rublee Lisa E. Stone Carol L. Vander Wal Sandra Michaelson Warren Maud Helen White Alvin C. White Amy B. Wilson Jill Okrent Zaheer

1983

Barbara W. Abraham llona A. Blosfelds Dalia Castillo Mark L. Dembert Philippe Duprat Susan Faris James N. Gaito Ellen M. Ginzler Daniel A. Graybill Virginia C. Hiland Margaret M. Kolb Cynthia M. Maglaque Eileen P. McDonald Scott K. Mock Jeannee Parker-Martin Nano G. Rush Lynn Saint Germain Wichit Srisuphan Patricia C. Weber Vicki L. Wilson Nancy K. Wright

1984

Georgia K. Berman Lynn Casey Carolyn H. Grantham-Millman Penny H. Hausser Marcia Lipkind Hirsch Sarah M. Horwitz Gregory R. Huth

Govind B. Modi Pamela E, Parise Dennis G. Shrauger Gerald L. Springer Marie Ann Tobin

1985

Suzanne Mary Cooney Katherine Santella Fitzpatrick Barbara K. Gottlieb-Ware Denise L. Jacobson P. Douglas McConatha Mara Natkins Adrian J. Pinsince Marcia Shapiro James V. Soscia Heidi Roberta Sulis Shirley J. Tirrell Nga Lien Tran Terry Martin Zingman

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1987

Eric M. Adler Caryl A. Beison Maureen E. Brady Hilda C. Chaski Margaret D. Corbae Deirdre A. Darsh Rohin N. Eastman Bridgid M. Garrison Charlotte Hitchcock Sara A. Holdcroft Timothy A. Jacobs Michael T. Koff Jr. Richard A. Lavely Catherine A. Leda Mary Ann Lillie Barhara J. Moggio Joseph J. Napolitano Judith Ann Natale Pamela Fitzgerald Pomputius Anita A. Roth Michael J. Testa Jacqueline A. Visner Joel A. Wasserman Elizabeth A. White John Wiesman

1988

Barbara Ellen Andrews Rohert Joseph Anthony Carlton Billy Barnswell Ellen Sofia Bass Elaine P. Berger Giselle Charlotte Bleecker Lisa Wilson Cheyne April R. Dworetz Mary Elizabeth Haesche



Detail from the portrait of C.-E.A. Winslow that hangs in the LEPH Library.

Paul Richard Jaconette Lydia Jeanne Landis Matthew Charles Liburdi Carol Ann Malinowski Karen Marie Nardi Shivarudrappa Satish Lynn R. Siegler Lawrence Vincent Silvia Darlene Uten Zimmermann

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Public Health Alumni Fund Class Participation

		1987	-1988	1988-1989		
CLASS	AGENT	TOTAL	% PART.	TOTAL	% PART.	
1941 and prior		\$2,974		\$1,829		
1942	Eric Mood	475	80	260	60	
1943	Eric Mood	271	27	396	45	
1944	Eric Mood	216	29	790	50	
1945		85	29	25	54	
1946		50	14	75	29	
1947	_	160	35	140	35	
1948	Samuel Herman	925	50	1,185	50	
1949	Edgar Geibel	485	25	360	25	
1950	Eric Mood	655	38	765	52	
1951	Robert Johnson	420	37	460	32	
1952	Yolande Lyon	1,000	37	1,010	37	
1953	Milton Sisselman	310	30	280	25	
1954	Eric Mood	25	7	50	14	
1955	Frances Ogasawara	280	33	360	50	
1956	David Boyd	518	33	365	47	
1957	Edward DeLouise	997	45	395	40	
1958	Philip Hallen	675	32	955	41	
1959	Dorothy Wilson	1,345	36	725	30	
1960	Gyla Brooks	960	48	515	39	
1961	Joseph Prekup	660	33	660	47	
1962	Thomas Mayhugh	300	30	80	20	
1963	David Dolins	1,120	38	795	30	
1964	Estelle Siker	1,430	41	590	27	
1965	H. Patterson Harris	1,705	45	780	38	
1966	Allen Cohen	345	15	145	15	
1967	James Malloy	1,590	35	1,545	36	
1968	Arnold Saslow	2,075	34	1,505	33	
1969	Robert Young	1,150	38	1,305	38	
1970	Susan Balter	3,705	38	1,245	27	
1971	John Bihldorff	2,170	48	2,015	48	
1972	Dorothy Lewis	685	28	415	24	
1973	Gary Sax	4,590	30	1,120	25	
1974A	Thomas Benoit	485	30	435	26	
1974B	Karen Lindfors	<u>480</u>	35	510	<u>32</u>	
		965	32	945	29	
1975	Linda Broker	3,887	34	1,952	26	
1976	Elaine Anderson	1,390	33	1,020	24	
1977	Dorothy Rice	1,075	24	735	19	
1978	Ann Freedman	1,090	22	815	21	
1979A	Catherine Norton	910	31	960	28	
1979B	Ralph Tartaglione	<u>1,170</u>	<u>33</u>	<u>550</u>	<u>36</u>	
		2,080	32	1,510	32	
1980	Christina Quinn	1,290	25	830	24	
1981A	Angelo DeVita	505	25	640	24	
1981B	Barbara Gaugler	<u>156</u>	$\frac{24}{27}$	<u>260</u>	<u>29</u>	
10024		660	25	900	25	
1982A	Constance Jarowey	360	13	380	22	
1982B	Jean Milton	<u>_730</u>	35	495	<u>37</u>	
10024	1 CC 11 1	1,090	22	875	28	
1983A	Jeffrey Hughes	770	28	475	23 <u>23</u>	
1983B	Marybeth McNerney	305	$\frac{29}{28}$	$\frac{230}{705}$	23	
10044	4 4 4 4 11	1,075		705	23	
1984A	Anthony Alberg	183	16	105	11	
1984B	Leslie Balch	<u>385</u>	<u>21</u>	180	<u>16</u>	
1005 4	tana Clara	568	18	285	13	
1985A	Joan Cleary	325	10	40	5	
1985B	Katherine Fitzpatrick	<u>295</u>	<u>26</u>	330 370	<u>26</u>	
1006 4	Indu Ahlamatia	620	16	370	14	
1986A	Indu Ahluwalia	535	17	365	14	
1986B	Aric Wilt	815	32	720	<u>33</u>	
1007 4	Hilds Charlei	1,350	23	1,085	25	
1987A 1987B	Hilda Chaski	460	17	620	25	
170/D	Elizabeth Wennar	345 805	14 16	180	16 22	
1988	Della Puca	<u>805</u>	<u>16</u>	800 321	$\frac{22}{22}$	
1700	Della i uca			321	22	

	1987-1988			1988-1989				
	NUMBER SOLI- CITED	NUMBER CONTRI- BUTORS	PERCENT PARTICI- PATION	TOTAL	NUMBER SOLI- CITED	NUMBER CONTRI- BUTORS	PERCENT PARTICI- PATION	TOTAL
EPH Alumni	2,138	619	29	\$52,395	2,161	598	28	\$36,388
Interest/Miscellaneous		_	_	2,505			_	3,125
TOTAL	2,138	619	29	\$54,900	2,161	598	28	\$39,513



The changing face of the School of Medicine: construction on the Yale Medical Library expansion progresses.

CALL FOR CANDIDATES DIRECTOR OF ALUMNI AFFAIRS

Following more than four years of devoted service, Dr. Nicholas P.R. Spinelli, '44, has announced his intention to relinquish the directorship in 1990 for reasons of health. Candidates for his successor, preferably an M.D. alumnus of the School of Medicine, are now being sought. Applications, inquiries and nominations should be directed to:

Myron Genel, M.D. Associate Dean for Government & Community Affairs Yale University School of Medicine 333 Cedar Street P.O. Box 3333 New Haven, CT 06510-8056

or telephone: (203) 785-6019

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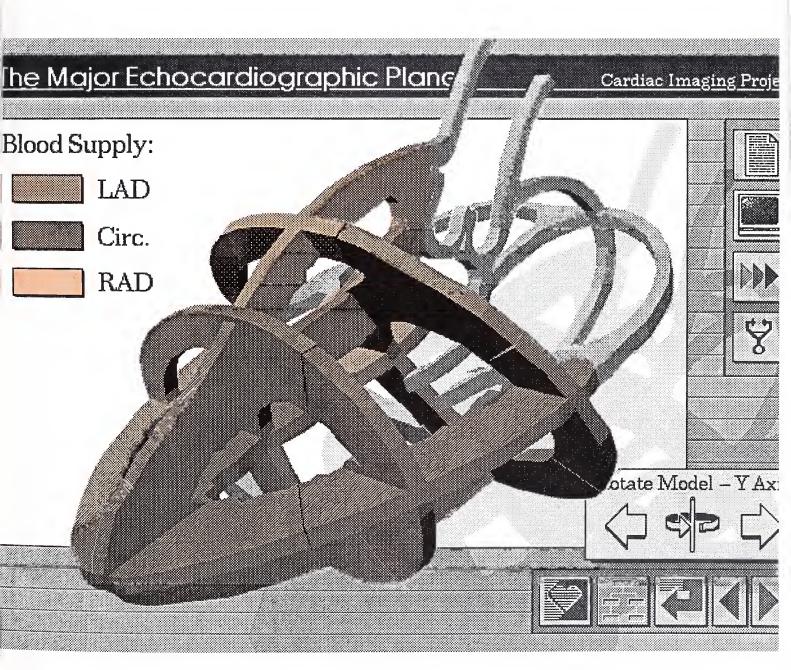
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YALE MEDICINE

Alumni Bulletin of the School of Medicine

Spring 1990



Transplantation at Yale: Harvest of Life

"Whither Thou Goest": A Story by Richard Selzer

YALE MEDICINE

Alumni Bulletin of the School of Medicine

Spring 1990; Volume 24, Number 2

4



Changsha Diary

James Chang, '92, writes about encountering a different welcome than expected at Hunan Medical University in China as the Tianamen Square massacre erupts during his visit.

9 Doctor 117641 Remembers

YALE MEDICINE commemorates those who died and those whose lives were changed forever by the Nazi Holocaust; Dr. Louis J. Micheels, HS '50-'53, reflects on his survival of Auschwitz.

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Transplantation at Yale: Harvest of Life

Organ transplants at Yale-New Haven Hospital are saving increasing numbers of critically ill patients. Discover how Yale is staying at the forefront of this highly technical field.

19 Transplantation: Ethical Challenges

YALE MEDICINE interviews Dr. Robert J. Levine, HS '62-'63, chairman of YSM's Human Investigation Committee, about some of the controversies surrounding organ transplantation.

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Whither Thou Goest

Former surgeon Richard Selzer, HS '61, presents a short story about a grieving young widow who has second thoughts about having donated her husband's heart.

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On the cover: An illustration from the Cardiac Imaging Project, an award-winning touch-screen computer teaching tool developed by Dr. Carl Jaffe, associate professor of diagnostic radiology and medicine, and Patrick Lynch, director of biomedical media production at the School of Medicine.

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The magazine is produced by the Office of Public Information: Helaine Patterson, director; Gregory R. Huth, publications editor; Leah D'Eugenio, staff assistant; and Claire Bessinger, senior administrative assistant. The tri-annual magazine is prepared in cooperation with the Alumni and Development offices at the School of Medicine. Layout and production: Hoblitzelle Graphics.

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PRESIDENT'S LETTER

by Benno C. Schmidt Jr.

1 am pleased to endorse the report of the review committee on the department of epidemiology and public health, chaired by Provost Frank Turner, and its recommendations:

- that EPH should remain a department of the School of Medicine within which it will retain its status as a school for purposes of accreditation;
- that its chairman, Dr. Burton H. Singer, be designated as an associate dean of the School of Medicine;
- that the study of public health and the study of medicine be better integrated;
- that resources be allocated to the department for the purpose of renovation of facilities and the recruitment of faculty in order to enhance the academic strength of the department; and
- that steps be taken to strengthen the process for recruitment and admission of students.

I wish to express my appreciation to Provost Turner and to each member of his committee for an excellent report and for the many hours devoted to the consideration of the future of the study of public health at Yale. Their fine work will undoubtedly enhance Yale's academic leadership in the arena of public health.

Research and education in public health has long been an important commitment of this University. This commitment is one of the most important ways in which the academic programs of Yale serve the New Haven community, the state, and the nation. The integration and emphasis of public service concerns into teaching and research is nowhere more essential for excellence than in the field of public health. By building our academic strengths in public health, we strengthen our contribution to public service.

In particular, I am pleased that the committee has concluded that the department of epidemiology and public health should remain an integral part of the School of Medicine. I believe this administrative and academic arrangement will permit Yale to develop even greater strength in public health in the future. As with the interdependent nature of research, training, and service, I am convinced that there should be an integral relationship between our efforts in medicine and parallel efforts in public health.

I also agree that the academic strengths of the teaching and research programs of the department need enhancement. I am pleased that Dr. Burton H. Singer has undertaken the chairmanship of the department and that Dean Rosenberg has agreed that Professor Singer and his successors should assume the position and title of associate dean of the School of Medicine, in addition to that of chairman of the department of epidemiology and public health. I believe this new title assigned to the chairman of the department presages an



Benno C. Schmidt Jr.

enhanced position for the School of Public Health within the School of Medicine. It also demonstrates Dean Rosenberg's own strong commitment to the nurturing of public health in the School of Medicine. The other recommendations of the report in regard to resources, space, and admissions have my full endorsement as well. In future weeks I shall be working with the provost and the dean of the School of Medicine to see that these recommendations are carried out. I have asked Dean Rosenberg to consider the best administrative and advisory structure to foster the integration of public health perspectives into the programs of the medical school, and vice versa, and to strengthen relationships between the department and the rest of the University.

I believe that the faculty of the department of epidemiology and public health should itself fully discuss the recommendation of the report that its name be changed to the "department of public health." I understand that the Turner committee believes that change would be desirable. However, any such change in name should emerge from very full discussions on the part of the department. I look forward to receiving a report from the chairman of the department through the dean of the medical school regarding this matter.

As the Yale department of epidemiology and public health looks toward the last decade of this century, it should take heart from the strong affirmation of the importance of its work embodied in this report. I cannot emphasize strongly enough the critically important role played by the public health profession in protecting and improving the physical and mental well-being of our nation. Yale University must make a major contribution to that effort. I also am convinced that creative and excellent teaching and research in public health is vital to the progress of Yale's general programs in medical research, care and education. The report and recommendations of the Turner committee provide the foundation for such a contribution.

1

President Schmidt's letter was sent to the School of Medicine faculty on Oct. 11, 1989.

Yale Medicine Spring 1990

LETTERS TO THE EDITOR

Dr. Elizabeth Morgan

To the editor:

Enclosed is a copy of a front-page article from the *Los Angeles Times*. It involves Dr. Elizabeth Morgan, '71.

The article is part of a great deal of publicity that has been generated by Elizabeth and her jailing. I have seen articles in U.S. News & World Report, People, Glamonr, as well as Elizabeth's schools' publications. I have not seen anything in YALE MEDICINE as yet and, whether you agree with Elizabeth's position or not, this is a hot topic of news that I would like to see covered in a future issue. I am sure that other of Elizabeth's classmates would be interested in this matter and I would bet that those who do not know her at all would find an article on her situation more interesting than many of the articles chronicling the numerous promotions, grants, etc., that appear in YALE MEDICINE.

I am sure that from the articles that have appeared there are ample facts from which to gather the information for an article, and Elizabeth can be reached via an organization called Friends of Elizabeth Morgan at P.O. Box 2724, Merrifield, VA 22116. I am sure they would be happy to help.

Dr. John W. Foster Jr., '71 New London, Conn.

Editor's reply:

Dr. Elizabeth Morgan, '71, a prominent plastic surgeon, had been jailed for 25 months in the District of Columbia for refusing to allow her divorced husband, Dr. Eric Foretich, unsupervised visits with their daughter, Hilary. Dr. Morgan, alleging that Dr. Foretich had sexually abused the child, now 7 years old, had hidden Hilary and refused a judge's order to reveal her whereabouts. Dr. Foretich has denied the charge. Since the time of your letter, May 25, 1989, Dr. Morgan was released from jail as a result of a bill passed by the U.S. Congress and signed by President George Bush amid growing national attention to her case.

As the alumni bulletin of the School of Medicine, YALE MEDICINE's policy regarding coverage of our alumni and faculty has been to feature developments of a professional nature only. Even when news about the personal lives of alumni and faculty

members gains wide notoriety, it is difficult if not impossible for us, publishing three times a year, to provide timely coverage that can augment up-to-the-minute national news media reports.



People Magazine, October 16, 1989, copyright © Time/Life Inc.

Fatal Distraction

To the editor:

Your article describing "Radiology's New Frontier" was indeed comprehensive and well-written. I hope you won't object to a little nit-picking on the part of an elderly radiologist—who trained under Hugh Wilson, the first chairman of the department of radiology (which had for many years been a section of surgery).

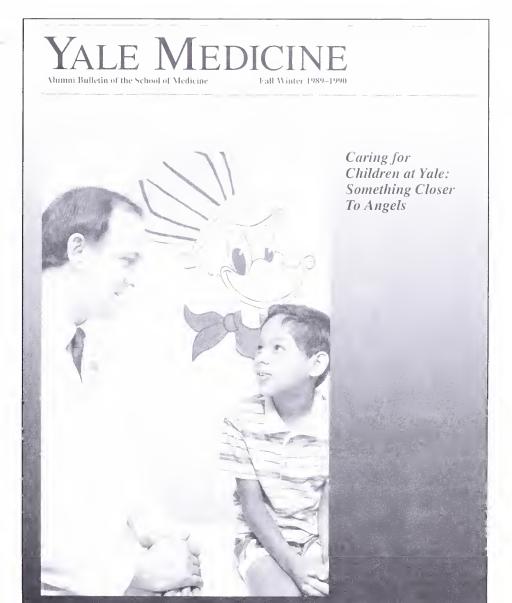
Page 13, first column, third paragraph, gives the reader the impression that fluoroscopy was introduced in 1972, where it states: "fluoroscopy and ultrasound further enhanced the diagnostic capabilities of radiologists." Fluoroscopy had been constantly utilized for many decades before 1972—with, however, much less sophisticated and much more cumbersome equipment. Incidentally, you spelled fluoroscopy incorrectly twice—p.15, col. 2—"flouroscopy" was the type—it was correct elsewhere.

The other mistake was your brief description of pneumoencephalography. You stated it "requires introducing air or gas into the brain's blood vessels for the sake of taking a clear X-ray." Would that not have been immediately lethal? In my day, a lumbar puncture was done and small amounts of cerebrospinal fluid were removed alternating with the introduction of the same amount of air into the subarachnoid space until there was enough air to fill the ventricular system and the cerebral subarachnoid spaces, which could then be demonstrated on appropriately positioned films of the head.

Dorothea R. Peck, M.D. '43, Mar. Woodbridge, Conn.

Editor's reply:

Thank you for the corrections, especially your clarification about pneumoencephalography, which indeed would be fatal if implemented as mistakenly described in the article. Perhaps because the procedure is no longer commonly in use, readers from the department of diagnostic radiology who reviewed the article did not pay close enough attention to the passage in question. We hope not to let such a mistake escape us again.



YALE MEDICINE Fall/Winter 1989-1990.

YM Fall/Winter Corrections

On page 27 of the Fall/Winter 1989-1990 Yale Medicine, Dr. Robert L. Arnstein was listed as psychiatrist-inchief at Yale University Health Services, a position that he holds emeritus. On page 30, the title of "Dr." was omitted from the name of Dr. Raymond L. Sphar '72 M.P.H. In the photo caption on page 36, the first name of Dr. Kathleen Maurer '85, was listed incorrectly. On page 56, the public health alumni fund chairman's report omitted the names of two class agents, Arnold Saslow '68 M.P.H. and Elaine Anderson '76 M.P.H.

The correct listing for the first three categories of 1988-1989 Sterling Association donors includes: Lifetime

Benefactors (\$50,000 and above) Myron A. Sallick '24, Berthold M. Comeau '28*, Nathan E. Ross '28, Robert R. Wagner '46; Sponsor (\$5,000-49,999) J. Roswell Gallagher '30, Edgar W. Warren '36, Stephen W. Collins Jr. '39*, Theodore E. Allen '40, Robert W. Frelick '44, Carol Goldenthal '44, Lawrence K. Pickett '44, Nicholas P.R. Spinelli '44, M. Felix Freshwater '72; Patron (\$2,000-4,999) Paul A. Harper '31, Lee E. Farr '32, John B. Ogilvie '34, Sanfurd G. Bluestein '46, Martin E. Gordon '46, Sidney S. Lee '50, Lowell I. Goodman '51, Harold D. Bornstein Jr. '53, William H. Hindle '56, Philip R. Fazzone '58, A. Thomas Snoke '64, Gary T. Grimes '73, Warren Tih-Shih Lee '87, Richard Allen Chase (former house officer), Argyle Stoute (parents and friends). *Deceased.

CHANGSHA DIARY

by James Chang, '92

June 4, 1989: The Antonov prop plane lifts off from Changsha, China, leaving behind the dozen or so MIG fighters that dot the runway. I look down on the roofs of the drab five-story apartment buildings that dominate this quiet provincial capital in the southcentral part of the country, home to more than two nillion workers. Beyond the city, geometrically partitioned cells of rice paddies and farmland stretch far off across the endless plains of Hunan.

I fan myself with the cheap wooden fans given to each passenger on every domestic Civil Aviation Administration flight. A few foreigners look terrified as they mistake condensation from the air-conditioning system for smoke.

The passenger next to me, a sweaty red-faced Englishman in his mid-40s, shouts above the droning propellers and introduces himself as the now-former consultant to a new Chinese cigarette factory in town. He chuckles, coughs, and then chuckles again when he hears that I was doing research on smoking in China. Between puffs on one of his last prototype joint-venture cigarettes, he jokes, "I guess we broke even. Both our projects have been abandoned, eh?"

Quite true. My stay in China had lasted only three days, climaxing in a mad dash to the airport—past smashed-up cars and crowds that clogged every intersection. None of the 20-odd foreigners on that evacuation flight had expected to leave Changsha so urgently, but because of the week's bloody events in Beijing, government purges, popular revolt, even civil war suddenly seemed possible. Embassies were urging their citizens to evacuate, and almost all promptly did.

My original plan for summer student research involved a three-month stay in Changsha to work with the cardiology section of the Hunan Medical University. Together with Dr. Henry R. Black, professor of medicine at Yale, we were to establish a prospective study on cardiac risk factors, modeled after the Framingham (Mass.) Heart Study. In contrast to the United States, China has experienced a phenomenal rise in cigarette smoking in the past decade. A recent survey in Shanghai reported that 61 percent of males now smoke. This trend may be attributed to the results of China's open-door economic policies—increased westernization and gains in material wealth.

Our research was part of ongoing cooperation and exchange between Yale and the Hunan Medical University. Interestingly, this Chinese medical school and affiliated hospital were both founded by the Yale-China Association in the missionary era of the early 1900s. Dr. Edward Hume and other Yale-China founders chose Hunan province for their work because it was inland and much more isolated than the foreign ports of Shanghai and Guangzhou, and the capital, Beijing.

James Chang is a second-year student at the School of Medicine. He plans to return to Changsha, China, when the political climate allows.



James Chang, '92

Changsha has kept the reputation to this day. It is the dusty, industrialized capital of Hunan province, which has otherwise remained agricultural. In modern China, where the coastal cities have undergone economic development and liberalization, Hunan remains a poor and backward neighbor. Changsha rarely draws foreign tourists, though local officials like to boast about its 2,000-year-old mummified queen and the nearby birthplace of Mao Tse-tung. The climate—below freezing in winter and unbearably humid in summer—helps keep visitors away.

The Morning After

I arrived in Changsha on the morning after the massacre in Beijing's Tianamen Square. The plane was still rolling when the rear door opened, letting in a blast of the Hunan heat that my advisors at Yale had warned me about. My fellow passengers, all Chinese, quickly rushed off to pack into the government bus that would ferry them into town, 20 kilometers away. With my three trunks of blood-drawing equipment, reagents, and an antiquated Bausch and Lomb spectrophotometer, I waited patiently for someone from the medical school to meet me.

A half-hour passed, and I began to look over at the fleet of Nissan sedans parked in the shade. The drivers, who



James Chang poses with members of the Hunan Medical University faculty.

ordinarily would swoop in to surround and hustle any foreign-looking arrival, squatted idly by their cars, smoking Western cigarettes. Finally, a short and stocky young man approached and introduced himself as Hong Jun, or "Red Soldier"—surely named by over-zealous parents during the Cultural Revolution. He wore tight Hong Kong-style bleached jeans and sported the frizzy "poodle" perm that had become the rage among seedier circles of Chinese youth.

Red Soldier was a money changer; he dealt in black market foreign currency. Through the thick slur of his Hunan dialect, I deciphered that his friends were willing to drive me to the medical school for five times the usual rate. I laughed off this greedy proposition and began to size up the other drivers, who for some reason remained uninterested. Swallowing my pride, I accepted his outrageous offer, reminding myself that the difference only amounted to a few U.S. dollars.

My driver and his broad-shouldered bodyguard sat in the front seat, while Red Soldier accompanied me in the back. News of the government's brutality had spread quickly across China to Changsha, and they all seemed nervous. According to Red Soldier, crowds had gathered all over Changsha city. Taxi drivers were afraid to drive into town; their relative wealth and reputation for corruption made them convenient targets for an enraged and highly unpredictable mob. To avoid such encounters, we sped along narrow roads and alleys, honking continuously and braking occasionally for chickens and children along the way. The driver's fear was contagious; I was beginning to wonder if I could book a flight out of China that day.

While I pondered such options, Red Soldier leaned into me

uncomfortably. With hot spices and garlic on his breath, he peppered me with questions about America and eventually directed the conversation to his favorite topic, American dollars. He leaned back and relaxed into his seat only after I had promised to pay in foreign currency.

That settled, he began to tell me about the strange goings on in Changsha that spring and summer. In April, the death of former Premier Hu Yao Bang touched off the first of the student protests in Beijing. Red Soldier explained that comrade Hu was not really that well-liked, but by honoring him, students were indirectly criticizing the present leaders.

I asked Red Soldier what the students were after. He told me that they did not seek to overthrow the government, only to make the leadership more accountable. In China, it was now possible to buy Japanese televisions, start a small business, and wear Madonna t-shirts, but citizens still could not easily change jobs, move to another city, or read more than one opinion in the newspapers. Voting for a representative was unheard of. Deng Xiao Ping and his economic advisors had allowed the economy to run more freely, but they refused to acknowledge the need for political reforms. Corruption and back-door favoritism ran so rampant that the best of everything—from work to housing to pork—went to those with Communist Party connections.

Roar of the Crowd

Suddenly our sedan hurtled out onto a main road, a few hundred feet ahead of a procession of students carrying a huge white banner. Our driver gunned the car forward and only

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YALE MEDICINE Profile: Dr. Tiefeng Hu

For the past year, Dr. Tiefeng Hu, an M.P.H. student who is completing his master's essay, has been president of the Association of Chinese Students and Scholars at Yale (CSSY). Conceived in the early 1970s as a support group for Chinese citizens at the University, the 200-member organization recently has focused much of its energy on trying to keep alive the spirit of democracy among Chinese students at home.

Under Dr. Hu's leadership, CSSY has helped organize demonstrations in support of the movement in New Haven, New York and Washington, D.C. During the Tianamen Square demonstrations in Beijing, the group was among the first to collect money for emergency medical care and to keep striking students apprised of Western news reports via fax relays between the U.S. and China.

Though Dr. Hu proudly notes, "We even made sure that the Yale flag flew at Tianamen Square," he adds with a sigh that the Chinese student who carried the banner is under investigation by communist authorities for his role in the demonstrations.

Numbered among CSSY's ranks are three students from the department of epidemiology and public health, and about 20 students in the medical school, most of them in Ph.D. programs. Dr. Hu points out that many physicians in China choose research over clinical medicine because of better opportunities for advancement. In his own 1986 graduating class at the Chinese Medical School in Beijing, 28 out of 34 doctors chose careers in research, in hopes of one day attaining the prestigious position of university professor.



Dr. Tiefeng Hu

Dr. Hu intends to continue his studies in cancer epidemiology at Yale as a post-doctoral fellow. He asks the Yale community, including its alumni, to continue its moral and financial support for democracy in China: "American public opinion does have an impact on the internal policies of China," he concludes.

relaxed when we were well ahead of the crowds. This was my first glimpse of the protests which had spread even to this remote province. Red Soldier chattered excitedly about how Changsha had been transformed in the past two months:

"When the students around here heard about the protests in Beijing, they started their own demonstrations. The provincial government building has been picketed for the past few weeks and classes have been boycotted ever since. There have been stabbings and beatings here and there, and no one knows for certain who is responsible. The secret police? The students? We workers? It's been crazy in Changsha—after what happened in Beijing last night, some protestors have blocked the railroad tracks and also the factory gates. I don't think the government can take this much longer. Something is going to happen, and happen soon..."

I wondered aloud how much support the students had.

My new companion, like most Chinese when they spoke about political matters, refrained from speaking in the first person. "Of course, the workers support the students. What they want is good for China. All that talk about democracy and freedom is a bit unclear, but the workers hate the corruption that is going on. And the workers cannot live with such inflation anymore! There have got to be some changes!"

When I asked what would happen now, Red Soldier leaned into me again. A whiff of garlic returned. "The people are afraid, very afraid. Look at what happened in Beijing."

Later, I understood what he had meant. In Beijing, the workers had joined in with the students and that was what caused the government to crush the democracy movement. The Chinese government could not tolerate threats to the

productivity of its workers. Elsewhere, in cities like Changsha, students took to the vanguard, but few workers had followed.

I never made it to the medical school that day. After circling the outskirts of Changsha for another hour, the driver simply gave up, collected his fare, and dropped me off at the Hua Tian Hotel, an empty establishment commissioned by overly optimistic tourism officials. With little desire to venture out on the streets, I switched on the Toshiba television in my room.

Instantly, helmeted soldiers were marching across the screen. The government, in the aftermath of the army massacre in Beijing, was winding up its propaganda machinery. I found myself watching an old revolutionary drama about a company of People's Liberation Army soldiers who had been wounded in action. In the stirring finale, a bandaged and crippled soldier walked into the sunset, to the grand music of "The East is Red".

Such broadcasts were hardly subtle, but they were effective. After watching repeated film clips showing tanks being torched by civilians and soldiers struggling to escape from the crowds, I strangely found myself developing sympathy for the government's actions and realized how much more convincing it must be to the Chinese who watch those broadcasts every day.

Nervous Hosts

I finally reached the medical school early the next morning. Two Hunan doctors had picked me up at 7 a.m.—as it turned out, shortly before protesters blocked the roads. I walked around to inspect my temporary home and noticed the red brick Yale-China residence. It was surrounded by fairly new but already dilapidated dormitory buildings, forming the courtyard of Hunan Medical University's foreign compound. I knocked on the old wooden door and introduced myself to the other Americans there—an independent English teacher and four Yale bachelors, recent Yale graduates spending two years teaching English in Changsha.

The mood grew tense as they gathered around the Hong Kong newspaper I had sneaked in. Yesterday's headline stood out in ominous two-inch black letters—3,000 DEAD IN BEIJING. In the isolation of Changsha, Chinese and foreigners alike found few reliable sources of information.

We tuned in the Voice of America and heard rumors of impending civil war and of rival armies preparing to battle it out. We fanned ourselves nervously and gossiped about what was happening around us in Changsha. "Some irate train passengers stabbed students blocking the rail lines!" "No, they were secret police!" "Some unemployed youths are smashing up cars downtown!" "The army is outside the city!" While it remained quiet and calm within the gates of the medical school, we could only wonder about what was happening outside.

That afternoon, three smiling Chinese doctors in faded white lab coats came to find me. They escorted me to a lab meeting where we discussed our joint project. My Chinese colleagues spoke excellent English, and after a few polite introductions, we began to work out the details of our research plans. In sharp contrast to the Americans, there was no talk of civil war or of violence in the streets of Changsha. Instead we discussed our sample population, a top-secret military aircraft factory with 10,000 workers, and the supplies needed for this sample size.

I interrupted the conversation to warn that I may soon have to leave the country. This bombshell was met with a brief, heavy silence and then uncomfortable laughter. "Oh, there's nothing wrong..." "Its very, very safe here..." "Our collaboration is just beginning, and we look forward to working with you all summer..." "Yes, there is a small problem in Beijing, but you foreigners are over-reacting...." My Chinese colleagues chuckled in unison as if to reassure themselves and then simultaneously stood up to leave.

As they left, however, one of the young doctors lingered under the pretense of examining my spectrophotometer. When we were alone, I offered him a look at my Hong Kong newspaper, and he snatched it immediately.

With great frustration on his face, my doctor friend whispered, "I still do not want to believe it, but these pictures cannot lie. We have been listening to Voice of America and BBC (British Broadcasting Corp.) every day to hear the news. Earlier today, the hospital director called the staff to a political meeting. Our party leaders read that silly government account of the massacre while all the doctors laughed out loud to protest! No one believes the government's story. Why does something like this happen to China now, just as we are beginning to improve our country? Ah, there is nothing we can do but wait...."

On the third morning of my stay in Changsha, I took a tour of the hospital, accompanied by three doctors who were under strict orders to keep me on medical center grounds. "It is just too chaotic downtown," warned the department chief. All around the clinics and in the wards, I heard doctors and nurses talking about Beijing: quoting BBC, repeating rumors from friends, or describing what they had witnessed while bicycling to work.

No one offered their own opinions on the matter. Like my doctor friend, everyone was waiting—waiting for a few more government broadcasts and a few more political meetings so that the party line would become clear. The Chinese had learned that it was safer to know precisely where the government stood before expressing political opinions. It was a matter of survival. No one was secure enough to be "out of line" if the purges returned.

After the tour, I walked back to the foreign guesthouse and with the help of my escorts purchased some steamed bread for lunch. I visited with some of the American teachers while the others desperately tried to book plane tickets and pack their belongings. Voice of America reported that the U.S. embassy had strongly urged all Americans to evacuate. Over lunch we discussed plans to get tickets for the earliest departure possible, which would not be until sometime the following week. In the meantime, all we could do was wait.

Herd Instinct

While eating, I was introduced to an old worker in the Yale-China guesthouse, a squat, solid woman in her late 50s. Though quite short, she was imposing, in a motherly way. Her name was Lao Yang, which translates to a rather unflattering "Old Sheep". Old Sheep served us our lunch,



James Chang renews family ties with a relative in Taixing, Jiangsu Province, in the countryside near Shanghai.

laced with fiery red peppers—the staple of any Hunan meal.

One of the Yale bachelors spoke in English, which Old Sheep did not understand, to tell me about her political evolution:

"She was assigned to cook lunch for us and to clean up around here, yet her real job is to snoop around and keep an eye on us. She probably reports on who comes by to visit us, but we have gotten used to her. Old Sheep is a staunch party member which means she usually follows the government line.

"When those first protests broke out in Beijing, she denounced them as 'spiritual pollution' and 'bourgeois liberalization.' As the students began to press for an end to corruption and greater control over runaway inflation, she, like many others around here and probably all across China, agreed with the students but stopped short of going out and marching with them. Few workers are willing to do that—out of fear of government reprisals and out of fear of another period of instability. The older generation, those who lived through the nightmare of the Cultural Revolution, does not have the stomach for another mass movement.

"In late May, when the government declared martial law, Old Sheep really began to change. I think even she felt that the government was wrong! It was pitting the people's children—the students and the soldiers—against each other. Watch her when she comes in to clean up. She looks really worried. She has heard reports about the massacre in Tiananmen Square last Sunday night, but she still cannot believe that the People's Army would fire on the people."

Old Sheep walked in while I was trying to balance a chunk of spicy tofu on my steamed bread. She hovered over the table like any Chinese host would and began to berate us for not eating all of her cooking. A Yale bachelor opened up my Hong Kong newspaper over the half-empty dishes. Old Sheep could not read English, but her eyes quickly focused on the pictures, those brutal black and white shots displayed around the world—bicycle carts racing along with wounded civilians, burned-out tanks and crushed bicycles, and rows of corpses on hospital floors. Instantly, she understood. Her eyes narrowed and shifted from one gruesome photo to another. Old Sheep looked away full of grief and whispered something about the death of her children.

I imagined that Old Sheep had supported the Communist Party all her life. As a teenager, she probably watched Communist soldiers march triumphantly into her village to liberate the peasants and sang such revolutionary songs as "I Love Beijing Tiananmen", truly believing that Chairman Mao and the Communist Party were the saviors of China. Old Sheep must have suffered when her children were sent to the countryside during the Cultural Revolution, but never until recently did she doubt the policies of the party. Why should she? The party had done much to improve her life. Now, she had been betrayed—the misery in those newspaper pictures had been caused by her government. What was left for her to believe in now?

I woke up early on the fourth, unexpectedly, the last morning of my stay in Changsha. Two Chinese doctors had come to my room to learn how to draw blood using vacutainer tubes. I had just found a nice fat vein on one of my colleagues and plunged the needle in when the department chief suddenly burst in. "Quick! Quick! You have half-anhour to pack! We are trying to get you seats on a special flight to Guangzhou today! Once in Guangzhou you can quickly cross the border into Hong Kong!"

I ran across the courtyard to tell the other Americans, but they were already frantically packing and saying farewell to their students. A small crowd gathered and waited in confusion by the Yale-China guesthouse.

The medical school's motor pool refused to drive us to the airport for fear of getting caught in the crowds. Someone suggested an ambulance from the hospital, but they were all busy in action downtown. Finally, the president's office came to the rescue; a small Toyota van magically appeared.

As we loaded our luggage into the van, one of the older officials tried to break the tension, joking about how the scene reminded him of running away from the Japanese during World War II. The students were crying over the sudden departure of their friends and teachers, and over the uncertainty of their future. Many had been active and proud members of the democracy protests in Changsha, but now, the situation had suddenly become dangerous. The students had been transformed overnight from heroes to "counter-revolutionary hooligans".

The doctors around me were more subdued. They had not been active in any of the protests, so their own positions were relatively secure. But with foreigners evacuating China, the doctors realized that the turmoil was not isolated in Beijing and that it was much more serious than they had imagined. They were disappointed and embarrassed that all the world was abandoning China.

One doctor sighed and spoke for the others, "How could China do this to herself with the entire world watching? I never thought we would return to the old days again," referring to the instability, repression and isolation of past decades. "We were doing so well. Now, no one knows what will happen."

The van was packed and ready to leave. The teachers broke away from their students and climbed in. My doctor friends stood in a group and worked to keep smiles on their faces during the farewells.

A school official shook my hand furiously and asked me to reassure the Yale-China officials back in New Haven. "We want very much to continue our friendship and cooperation."

In reply, I tried to be as optimistic as possible: "Everything will be fine. Perhaps I'll return in a few weeks."

At that moment, however, I was more concerned with getting out of Changsha. We still did not have plane tickets; our only hope was a doctor with connections at the airport. Our driver pulled away slowly, anticipating the unruly crowds outside the campus gates. The teachers, in tears, turned to wave at their friends left behind. Off to the left and standing alone behind an iron fence was Old Sheep, crying and waving even more furiously than the others.

The Antonov prop plane sputters in descent, disturbing the snoring red-faced Englishman beside me. Soon we will land in Guangzhou and cross the border into Hong Kong. I know that 1 am safe, but with the crackdown sure to come, I wonder about those still in Changsha. Will Red Soldier still be free to make his buck? Will the doctors and students escape the purges? And will Old Sheep ever believe in her government again?

DOCTOR 117641 REMEMBERS

by Dr. Louis J. Micheels, HS '50-'53

"The tattooed number was literally the first irreversible change of my body, imposed on it, like the branding of cattle, at the point of a gun. The number was at that moment and forever after in the realm of the S.S. our only identity." —from Doctor 117641: A Holocaust Memoir, 1989, Yale University Press.

One of the inevitable questions I have been asked is: "Why did you wait such a long time, more than 40 years, before you wrote this book?" The answer is complex, and I must warn my readers that it may take considerable courage to immerse themselves in this matter.

In spite of all that has been told and written about the Holocaust, it still represents a mystery capable of provoking a sense of terror in either those directly or indirectly involved. Actually, the sense of mystery tends to increase the deeper one tries to explore those events which occurred so many years ago.

A colleague, Dr. Sheldon Roth, wrote a paper about the "Shadow of the Holocaust," in which he described how he as a child would see people in his neighborhood with a blue number tattooed on their left forearm and experience a sense of mystery and terror. However, when he would see in the newsreels the pictures of the concentration camps and their emaciated survivors almost indistinguishable from the dead, he could or would not make the connection between these pictures and his neighbors.

Throughout the Holocaust and after, there has been a gap that seemed insurmountable between the world of the *Lager* and the civilized, free world. I have compared, as others have, the Nazi concentration camp to some other world with different values and extraordinary contrasts. It was like another planet, unknown to us and light years away. A world which was inhabited by creatures—both the S.S. and inmates—who were very difficult to recognize as human; the former in a figurative sense with the skull emblem on their caps, and the latter literally reduced to anonymous skeletons.

When I was deported from Mechelen, Belgium, in the spring of 1943, harboring these notions of mystery and terror about what was to come, I consoled myself with naive thoughts of being an explorer going to some territory unknown to mankind. The world I knew was drifting away not unlike the way the Earth did to the astronauts on their way to the moon. An important difference, however, was that the astronauts kept in constant touch with familiar people in a known world. I could not.

The disparity between these two worlds was sharpened and maintained by the Nazis. They made the "Final Solution" a top secret. The S.S. staff of the camps were indoctrinated as to the absolute legitimacy of their murderous task. Their superiors impressed upon them that those to be gassed were not human, but evil incarnate. The S.S. were to consider themselves at war with these "subhumans" who had to be exterminated to purify the Aryan race.

Yet, one could ask: "If the S.S. really accepted these socalled explanations, why did they do everything possible to cover their tracks?" They enveloped the camps in a veil of secrecy. Some camps were even referred to as *Nacht und Nebel* (night and mist), and were kept totally devoid of contact with the outside.

Another factor which accentuated this contrast for me personally, but also generally for people born in Holland, was the high standard of living that we were used to, and the traditional tolerance for diversity, especially of religion. Holland had been a haven for the persecuted, including Jews, ever since the Inquisition in Spain during the 16th century. Over the years a high degree of assimilation had developed.



Dr. Louis J. Micheels, HS '50-'53

Alumnus Profile: Dr. Louis J. Micheels, HS '50-'53

Within a year after Dr. Louis Micheels passed his final medical school examinations from the University of Utrecht in the Netherlands, he was plunged into the netherworld of the Nazi Holocaust. He survived more than three years in Mechelen, Auschwitz and other concentration camps, in part because of the elevated status the S.S. afforded him as a physician prisoner.

After the war, Dr. Micheels came to live in the United States, following completion of his training in the Netherlands and having obtained the equivalent of National Board certification. He served his psychiatry residency at Grace-New Haven Hospital from 1950 to 1953, and has since had a private practice in Westport, Conn. Dr. Micheels is also an associate clinical professor of psychiatry at the School of Medicine.

The village of Bloemendaal, where I grew up, was perhaps an extreme example of this trend. It is located to the west of Amsterdam on the border between the lowlands, or meadows, and the wooded hills of the dunes. Though very close to the sprawling city of Haarlem, the village seems frozen in time and still can be recognized in the paintings by Jacob van Ruisdael and Rembrandt as seen from the dune tops nearby.

Five or six of Bloemendaal's large country estates, dating back to the 16th century, were still in private hands at the time of my childhood. The remainder of the village consisted of rather large houses, villas, in a beautiful parklike setting. Many of the stores in the center of town had been kept in the same families since the 1800s.

The number of Jewish families living in Bloemendaal could be counted on the fingers of one hand. Nevertheless, one of the large estates in the southern part of the community had been owned by a Jewish family of Portuguese origin since the early 18th century. They had been elevated to the ranks of nobility by King William III of Orange. This was probably done, at least in part, for financial assistance they had provided the king when he returned to Holland from England to establish the monarchy. In my growing-up years I was spared any manifestations of antisemitism. I knew I was a Jew, had my *bar mitzvali*, but had little interest in religion.

You may be able now to imagine the shock of the Nazi occupation, the increasing number of Dutch collaborators, and eventually, this alien world of Auschwitz. The Dutch Jews were obviously least prepared for the Holocaust and a larger percentage of them than those from other countries perished. They lacked the toughness of the average Eastern European Jew. I had some "training" by my previous activities in sports and confinement, first in the prison of St. Gilles in Brussels and thereafter in the transit camp, Mechelen, also in Belgium.

It was in Mechelen—rather than at Auschwitz—that I experienced the nadir of my being as a prisoner of the Nazis. For me it was an introduction of sorts to this "other-world." For it was in Mechelen that I was first exposed to the destructive and dehumanizing forces unleashed by the oppressor. He created the most deprived and humiliating environment imaginable. The devaluation of human life; the prisoners' desperate attempt to save their own lives; the "each for himself" mentality, all conspired to confront me with my severest test.

The Hush of Hell

The very nature and dimensions of the crimes perpetrated by the Nazis, in spite of their rationalizations as described above, required a total secrecy. Many of the death camps such as Auschwitz were isolated geographically. This in itself limited communication with the outside world. There was also a psychological barrier that prevented any information from going out of the camp. Civilians did come in contact with prisoners, and they could see the flames or smell the smoke emitting from the chimneys of the crematorium. Yet everybody seemed to deny this obvious evidence of the "Final Solution."

I find it still difficult if not impossible to find adequate words to describe the Holocaust in a way that evokes a convincing image. Lawrence Langer, who studied many testimonies of survivors, approximated its nature when he wrote: "The Holocaust was not merely another kind of dying." Rather, it concerned innocent people, wiped from this earth without a trace, and with no claim to martyrdom, heroism or even being a traitor. Our religious and cultural institutions—even our language—are hardly geared to help us cope with

mid Leben with

This postcard was mailed by Dr. Micheels from Auschwitz to a friend in Holland in June 1943. Written in German as required by his Nazi captors, it reads: My dear, I am happy to be working in my profession. I hope you too are well. Please send me a package of food. Warm greetings. Your, Louis Micheels.

such atrocity.

After the liberation, the need to forget or deny the Holocaust by both the survivors and those around them tended to perpetuate the secret and mystery. It seemed to linger on as if every survivor was still a so-called *Geheimnisträger*, a "bearer of the secret."

This term originated in the camps for persons who knew too much. For example, prisoners who worked in the gas chambers were periodically killed to safeguard the secret. Since after a certain length of time everybody in the camp knew, they all could be considered *Geheimnisträgers* and consequently under the shadow of a death sentence. At times the S.S. or some *Kapo* (prisoner foreman) would greet newcomers with: "Don't expect to ever leave here alive."

A few people, nevertheless, managed to escape to Czechoslovakia, and with their help the underground prepared a very detailed and precise report. This was forwarded to Geneva, London and Washington via their embassies. The report ran into a wall of disbelief and denial. Thus, it was put on the shelf.

The same fate befell the message of the courageous Pole, Jan Karski. He described in the movie "Shoah" how he as a courier between Poland and England gave similar information to Anthony Eden (England's foreign minister), who would not let him speak to Winston Churchill. No action was taken on his report, and the secret remained as if those at the highest

Almost miraculously, Dr. Micheels' card was received by his friend, and in January 1944 the requested package of foodstuffs made its way to him in the concentration camp. He responded with another card: My dear, I was overjoyed to receive your package. I am well and hope the same for you. Warmest greetings. Your, Louis Micheels.

level of the Allied command had succumbed to the Geheimnisträger disease.

I believe that if the secret and the name of the perpetrators would have been revealed by every means of communication available in those days, such as pamphlets dropped by airplanes, the resistance to deportation to the places revealed as death camps would have been so much stronger among the victims and the onlookers. Gita Sereny in her book *Into That Darkness* wrote that many from Western Europe arrived at the death camps prepared as for a Sunday stroll. The S.S., under the leadership of their doctors, played on this denial like a magician who exploits the blind spots of the audience to perform his tricks.

After the war, many survivors, their relatives and friends unwittingly engaged in the conspiracy of silence, as well. Perhaps this was caused in part by a fear that the pain of wounds as-yet unhealed would become unbearable if explored. A certain degree of spontaneous healing had to occur first.

Dr. Albert J. Solnit, Sterling Professor in the Child Study Center, Pediatrics and Psychiatry, who wrote the foreword to my book, offered a valuable insight. He suggested that in his experience with treating traumatized children, there should be a balance between "too little" and "too much" memory; a "trade-off between neurotic, not-too-costly distortions in exchange for achieving a sense of coherency about one's life and self."

The same, I believe, applied to survivors of such experiences as the Holocaust. After nearly 50 years, my own healing process is not clearly defined, as yet, except that it seems related to mourning. It involves both remembering and forgetting, progressing ever so slowly.

Initially, after the end of World War II, most of my

conscious efforts were geared to forget the Holocaust and everything associated with it. It was not until I began my personal analysis that I began to dream regularly about it. For many years, however, I was one of those who rarely if at all talked about his experiences in the camps.

Renewing the Past

I changed in this sense nearly 40 years later when I began to write the story which became my book. After I had written the first draft, I developed an almost insatiable hunger for Holocaust literature, wanting to compare what had happened to me with the experiences of others. Gradually, I began to feel satisfied that I had successfully confronted this dark trauma from my past, and felt free to direct my interests elsewhere. I doubt, however, that I can ever really forget the pain of all that is subsumed under the "Final Solution."

My memory for certain details is a different matter. Actually, thereby hangs another tale. When people are exposed through the media to Holocaust memoirs and research, they frequently feel unsettled. Talking about it to a friend usually seems to restore a certain peace of mind.

It has become common knowledge that, similarly, certain close relationships in the camp could have an extremely important, beneficial effect. Indeed, it could spell the difference between life and death.

I mentioned earlier the amazing contrasts in the rather schizoid world of the camps. Beside the pervasive, destructive forces calculated and promoted by the S.S., also existed the purest form of altruism and love. These relationships, either in small groups or on a one-to-one basis, played such an important role because they represented an antidote to the primitive distrust fostered by the almost psychotic forms of



After being separated early in the war, Dr. Micheels and his fiance Nora were reunited first in Auschwitz and then in Paris after their liberation. They are pictured here after the war in 1945. He credits their relationship for giving him a reason to live while in the concentration camp.

murderous aggression that surrounded us.

An important requirement for a trusting relationship was for the other person to have the same mother tongue. Many a life was lost because of language problems. Of course, German was essential when communicating with the S.S. It was my luck to find my fiancee back in the central camp of Auschwitz, after we had been separated on arrival. The fact that we managed to maintain contact throughout the two years of our imprisonment there was essential for our survival.

In discussing the first draft of my book with this woman, we discovered something very interesting about our memory from those two years. I had totally forgotten certain events which she remembered, and vice versa.

One such forgotten segment concerned a particularly sadistic routine of the S.S. commandant of the camp in Mechelen. As I wrote in my book:

The S.S. commandant had the perverse habit of requiring that every prisoner stick his bare feet out from under the blanket so that the commandant could inspect them for any speck of dirt. For this purpose he would make rounds of the dormitories after bedtime. Any prisoner who failed this test had to go outside barefoot and partly dressed to do 'sport' in the snow or mud. Pneumonia was a common sequel. Fortunately it never happened to me. There being no water in the dormitory, we would use spittle to clean our feet.

Once reminded, it took me about a week to remember this fully, to know it was my own experience and not something I had been told 40 years after the fact.

This serves as a powerful demonstration of how memory for such catastrophic times can be disturbed in unusual ways. During the writing of this book, I felt confident that my memory was unusually intact and coherent. As I progressed,

more or less forgotten segments came to the foreground of my mind. This made the discovery of my having so completely forgotten this particular event quite amazing at first.

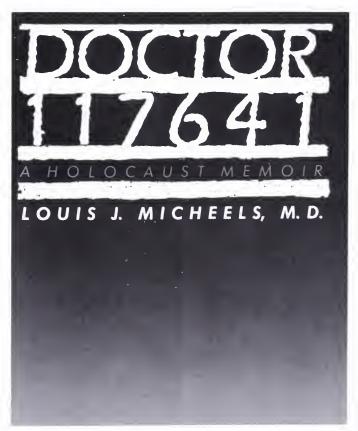
However, from a psychoanalytic point of view, this is not unusual. Piecing together memories is common for people undergoing psychoanalytic treatment. It remains, though, very striking even for a psychoanalyst of many years to experience how even completely forgotten memories can be recovered. The length of time of the forgetting does not seem to make any difference.

I conclude this article with one of my more pleasant memories. Toward the very end of the war, I escaped in the south of Bavaria and met up with the Seventh Army of the U.S. Armed Forces near Mittenwald. While in this area, I bought a loaf of bread from a woman who worked in a local bakery. I was not aware that I had behaved more decently toward her than most ex-prisoners in the area, until she made a point of telling me that others did not pay for their bread; they just took it.

One reason I paid her was that the owner of the house where I spent my first days of freedom had given me some pocket money. A more important reason was that I wanted very much to be civilized again in a civilized world. I tried to avoid being in any way like the Nazis, who stereotyped everybody along national or racial lines. Long before the war was over, and, if possible, even more so afterward, what I have hated most is to generalize about people according to appearance or language. Our herd instinct is too easily aroused, as demonstrated by the Third Reich.

In closing. I hope that in some small way, having set these memories in black and white will help prevent these tragic events from slipping away into the shadows. Our recollection of those millions who were murdered must never disappear into the *Nacht and Nebel* of the past.

YM



Dr. Micheels's book, Doctor 117641: A Holocaust Memoir, was published by Yale University Press in 1989.

TRANSPLANTATION AT YALE: HARVEST OF LIFE



Dr. John C. Baldwin leads a team of surgeons in a Yale-New Haven Hospital operating room.

Photographs hy James Anderson

by Susan Okula

Brookline, Mass., Memorial Day weekend 1988: Claire Berman Sylvia, age 47, sits in her kitchen eating ice cream and cake with a friend. The former professional dancer suffers from primary pulmonary hypertension, a progressive, fatal disease involving a build-up of pressure in the hungs and right-heart faihure. For a year, she has been housebound, her body starved for oxygen. It is difficult to eat. It is difficult to breathe.

The telephone rings.

Gail Eddy, transplant coordinator for the School of Medicine's cardiothoracic surgery division, has called to summon her to Yale-New Haven Hospital. Because someone has died, Claire Sylvia has another chance at life—she is about to become New England's first heart-hing recipient.

"Suddenly we were speeding down the Mass Pike at 90 miles an hour," recalls Ms. Sylvia. "My daughter pointed out

Susan Okula is a freelance writer. She is a regular contributor to this magazine.

the car window to show me the most beautiful rainbow. We knew it was a good omen."

In a five-and-a-half hour operation, Dr. John C. Baldwin, professor and chief of cardiothoracic surgery, implanted the heart and lungs of a young man from Maine into Ms. Sylvia's chest. Three days later, she was up on an exercise bicycle in the intensive care unit. "Before the operation, I couldn't even have walked around it, and there I was pedaling it," she says.

Now, nearly two years later, Ms. Sylvia is taking dance lessons again. She serves as the facilitator of a transplant support group at Yale. She is looking for work. "I feel like I've been reborn," she exclaims, beaming.

In a sense, she has. "The great thing about transplantation is that you don't just allow people to survive; their quality of life turns around," says Dr. Baldwin. "This is not palliation. Our patients receive a normal heart and lungs."

Since Ms. Sylvia's surgery, five other people have received hearts and lungs at Yale-New Haven Hospital, the only institution in New England accredited to transplant lung tissue. Dr. Baldwin and his colleagues have also performed more than 20 heart transplants. Despite an impressive one-year survival rate for both operations of more than 80 percent,

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the procedures are anything but routine. "Doing a heart transplant or a heart-lung transplant is almost like mounting the Normandy invasion," explains Dr. Graeme L. Hammond, professor of surgery. "There's a tremendous amount of work that goes into it, relying on many people."

First, transplant coordination teams must locate and match organs with recipients. Then, surgical teams retrieve the organs. Finally, transplant surgeons implant the tissues.



In 1989, Dr. William H. Marks headed the team that undertook the first pancreas transplant in Connecticut.

Each phase of the highly coordinated effort is poised against the incessant advance of the second hand. Once an organ is removed from the donor's body, it remains viable only for a matter of hours. Reports Dr. Hammond: "When you see all the elements coming together into a successful transplant, it's very moving. You have a tremendous feeling of accomplishment."

That feeling also runs deep in the division of organ transplant and immunology, directed by Dr. Marc l. Lorber, associate professor of surgery. The division's surgeons transplant kidneys, livers and most recently, pancreata. With the heart/lung and multiorgan transplant programs, both introduced since 1986, Yale-New Haven Hospital and the School of Medicine offer transplants of all clinically applicable organs, keeping the institutions at the forefront of this medical field.

Dr. Lorber and William H. Marks, M.D., Ph.D., associate professor of surgery, transplanted about 40 kidneys, a dozen livers and at least three pancreata in 1989. They expect the numbers to increase.

"We are developing a first-quality, multi-organ clinical transplant effort," states Dr. Lorber. "We are always asking

how we can improve our methods, addressing issues in the laboratory that have both clinical and biological relevance."

Since the advent of the immunosuppressant drug cyclosporine in the 1970s, the number of transplant procedures has climbed. In the public eye, the dramatic nature of such operations symbolizes the height of medical skill and technology. But transplant specialists point out that their science is only in its infancy.

An Expanding Field

Perhaps the biggest challenge facing the future of transplantation is a shortage of human donor organs. For example, about 50,000 people a year die from heart failure in the United States. The maximum number of donor hearts available in any one year is only about 3,000. "So there will always be a shortfall," observes Dr. Baldwin. Submits Dr. Hammond: "The answer for end-stage organ disease is to be able to transplant organs from lower animals into human beings."

Cross-species transplantation, or xenografting, has been tried on a limited basis on humans, including the widely publicized Baby Fae case in 1984, in which an infant lived for 20 days with the heart of a baboon. Hearts from large primates or from pigs are anatomically similar to those of humans, making the operation feasible—at least, theoretically.

Rejection by the human host of an animal organ looms as a major biological roadblock, however. To overcome this, researchers in Dr. Hammond's laboratory are exploring ways to genetically engineer an animal heart so that it will not manufacture the antigens that would turn a human's immune system against it.

"Pregnancy may provide key insights into how to prevent xenograft rejection," suggests Dr. Hammond. He explains that the placenta suppresses expression of surface antigens on its trophoblast cells. It does this by exerting control over MHC (major histocompatibility) gene expression—one of the biological mechanisms that keeps the mother from rejecting her own fetus as foreign tissue. "If we could figure out that mechanism, then we would have a very good chance of preventing rejection," he concludes.

Toward this end, Dr. Hammond and his colleagues have isolated a group of proteins from placenta that binds to one of the MHC genes. If the proteins prove to be part of the process that controls MHC gene expression, then it may be possible to analyze the proteins' structure, make gene constructs for them, and insert the constructs into an animal ovum.

Theoretically, the result would be a strain of transgenic animals that continually synthesizes the proteins, thereby suppressing surface antigen expression on all their cells. "Potentially, such animals could provide an unlimited source of organs for human transplantation," Dr. Hammond explains. He adds that this development could resolve the shortage of donor organs and remove the constraints placed on surgeons due to the short time that human organs remain viable for transplantation.



Dr. Marc I. Lorber checks the condition of a kidney transplant patient. He and Dr. Marks transplanted 40 kidneys in 1989.

Dr. Baldwin adds that successful xenografts would revolutionize heart surgery by giving surgeons faced with tricky repair procedures the option of transplantation. For example, a heart transplant might pose less of a risk to a patient than a double-valve replacement.

While aware of the arguments that animal activists would mount over xenografts, the surgeons believe the procedure would be accepted by the public. They point out that even now, pigs slaughtered for human consumption have their heart valves removed for use in human operations.

"Patients will accept it, of course, when they are faced with a fatal disease, just like they accepted transplantation when it was new and very strange," Dr. Baldwin says. "People who otherwise would die while waiting for a heart at least would have this as an alternative."

As of December 1989, about 22 people—all with less than a year to live without a transplant—were on the waiting list for new hearts at Yale. Donor hearts likely will be found for only about half of them. Other patients will die waiting for livers, or face long periods undergoing dialysis while waiting for kidneys.

Most donor organs come from people who have suffered brain death; organ shortages, with the exception of hearts, would disappear if all potential donors made their tissues available. Dr. Margaret Bia, associate professor of medicine and director of transplant nephrology, notes that only between 10 and 15 percent of this population donates organs.

She attributes this problem to a lack of awareness by potential donors and their families, a hesitancy by some doctors to broach the subject with distraught family members dealing with the unexpected death of a loved one, and outright refusal by some family members when approached.

"I've gotten to the point where I just don't understand it," complains Dr. Bia. "When you can do so much good helping someone else after the death of a loved one, how you can just turn around and say no?"

New Directions

Not all donor organs come from cadavers. In some programs, up to 30 percent of kidney transplants involve living, related donors, as do a small percentage of pancreas transplants. Recently, living donors have been used for liver transplants in children. This procedure, developed at the University of Chicago, involves dividing the donor's liver into multiple lobes for transplantation.

Dr. James L. Boyer, professor of medicine and head of the Yale Liver Center, says the operation could eventually be performed at Yale if it proves effective. "It's a major problem to find livers for babies," he notes. "Our problems include the very small size of the organ and of the child's abdomen, and, of course, the scarcity of child donors."

Dr. Lorber assumed responsibility for Yale's liver transplant program in September 1986. He also has strengthened kidney transplantation surgery at the School of Medicine.

When Dr. Marks initiated Yale's pancreas transplant demonstration project in 1989, he and his surgical team undertook the first such transplant in Connecticut, and the first in New England outside of Boston. Transplants are performed on Type I diabetics who have complications such as kidney failure. The operation frees patients from the need for insulin injections, while accumulating evidence suggests

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Fetal Neural Transplants: Promising, Politically Proscribed



Dr. Dennis D. Spencer (left) and D. Eugene Redmond confer about a grant proposal to help them continue their work developing new treatments for Parkinson's disease.

Clinical transplantation research pioneered by Yale scientists—using brain tissue from aborted fetuses—may one day offer new hope to the nation's 1.5 million victims of Parkinson's disease. Yet the program headed by Drs. Dennis D. Spencer, the Nixdorff-German Professor of Neurosurgery, and D. Eugene Redmond Jr., professor of psychiatry and director of the neurobehavior laboratory, is not without controversy. Affected by the debate surrounding abortion, transplantation of aborted fetal tissue faces an uncertain future. Responding to the concerns of abortion opponents, the Reagan administration stopped federal funding for research involving such tissue, a ban continued by the Bush administration.

The Yale study continues with private support, a decision made independently from the federal moratorium. In deciding to move ahead with this promising new approach, the School of Medicine and Yale-New Haven Hospital recognized that the procedure might benefit seriously ill patients who have not been helped by currently available treatments.

The implant procedure uses fetal brain cells to replace the dopamine-producing brain cells deficient in people with Parkinson's disease, a degenerative disorder characterized by rhythmic tremors and muscular rigidity. Fetal cells are better capable of growth and less likely to generate an immune response than mature cells. The research protocol calls for a total of 20 patients to undergo the operation in two years; each patient will be followed for five years. The first patient, a 48-year-old Connecticut woman, was implanted in December 1988. Drs. Timothy L. Vollmer and Kenneth Marek, assistant professors of neurology who are evaluating patients for the study, reported that their team had assembled about one-third of the patients needed.

"We're very positive about the study," Dr. Spencer comments. The researchers will release results when the study is completed.

Each subject receives post mortem fetal neural cells that

are frozen in liquid nitrogen and tested for safety, identity and viability before they are thawed and implanted. The operations culminate years of basic research involving animal studies conducted along with University of Rochester scientists. The primate studies were undertaken at the independent Axion Research Foundation Primate Facility in St. Kitts, the West Indies, where the monkeys are cared for in a more natural setting.

In May 1986, the Yale-Rochester team was the first to publish a report which described successful transplants of primate brain cells to reverse symptoms of an experimental model of Parkinson's disease in monkeys. Eighteen months later, the researchers reported that they had successfully frozen and preserved fetal monkey brain cells and that the cells survived transplantation into other monkeys.

The fetal brain cells produce the chemical dopamine, which helps control motor movements, as well as other central nervous system functions. If primates or humans lose nearly all of their dopamine-producing neurons, they develop signs of Parkinson's, which can be fatal.

"Ultimately, we would like to see a form of cellular transplant replace certain circuits and chemical deficiencies in degenerative or injured brains, restoring function and reversing cell loss," concludes Dr. Spencer. Commenting on the political controversy surrounding this research, he adds, "Our work is an appropriate clinical extension of the basic research project and has nothing to do with the abortion issue." Dr. Spencer points out that a woman's decision to have an abortion is made independently of the project, and she is not asked to donate the cadaver remains of her fetus for research until she has actually entered the hospital clinic. Even after the abortion, women have until the research or transplantation procedure begins to withdraw permission for such use of the tissue.

Responding to "pro-life" advocates, the government has continued the federal funding ban despite an exhaustive two-volume report issued by the Human Fetal Transplantation Research Panel in December 1989. The panel, appointed by the National Institutes of Health (NIH), recommended that the moratorium be lifted. Dr. Myron Genel, professor of pediatrics and associate dean for government and community affairs, faults the government for ignoring the NIH recommendations.

In a recent essay in *The Chronicle of Higher Education* coauthored with Sarah Carr of the Association of American Medical Colleges, Dr. Genel wrote that the ban could have serious implications for human and fetal health. "Even more troubling, however, is what abortion politics have done to the government's ability to develop public policies in a rational manner," the authors conclude.

The clinical research at Yale was preceded by a review of the ethical and scientific issues by the University's Human Investigation Committee. Subsequently, the proposal was reviewed by senior officials of the medical school and the University.

The donors who are funding the research wish to remain anonymous, Dr. Spencer reports. Despite their generous support, the lack of federal funds has had its impact, limiting the scope of the research and its progress.

"The debate is frustrating to us," admits Dr. Spencer. "We understand the problems, and the wariness that people may feel about research efforts on the frontier of cellular replacement therapy. We, however, are hoping to provide new insights into restoring lost brain function. The work is being carried out with strict scientific vigor."

that a successful graft may also prevent progression of the complications of diabetes such as kidney failure, blindness, neurological abnormalities and accelerated vascular disease. Drs. Marks and Lorber expect that one day pancreas transplants may be performed on patients who are identified as being at risk for those complications but have not yet developed them.

One of the difficulties involving pancreatic transplants has been monitoring rejection of the organ. Currently, the best way to do so has been to monitor the possibility of rejection of a simultaneously placed kidney transplant.

Dr. Marks, along with Dr. Anders Borgstrom of the University of Lund in Sweden, has developed an experimental assay that appears to pick up rejection of the pancreas early enough so that it can be reversed. The assay involves the pancreatic protein trypsinogen; in the early phase of rejection, blood levels of the protein become highly elevated.

"Certainly more work needs to be done, but it's our impression that this will provide us with the missing tool that will allow us to do pancreas transplantation separate from kidney transplantation. We're very excited about that," says Dr. Lorber. He is helping organize a multicenter study to test this assay prospectively.

In another diabetes research project, Dr. Marks is studying whether the whole pancreas need not be transplanted to provide adequate glucose regulation. In the laboratory, he and his colleagues are pursuing a possible growth factor which may support islet cells within the pancreas—cells that produce the hormones which regulate glucose metabolism and glucose homeostasis. Theoretically, this factor could allow physicians to expand islet cell mass in tissue cultures so that enough cells could be manufactured for transplantation.

In conjunction with Dr. Robert E. Handschumacher, professor of pharmacology, Dr. Lorber is also developing methods to measure the precise amount of cyclosporine a transplant patient would need to stave off organ rejection. Although cyclosporine administered with other drugs allows transplant patients to tolerate graft organs, the drug also has a number of serious side effects, including toxicity to the liver and kidneys, and a heightened chance of malignancy and susceptibility to infections. So considerable incentive exists to keep dosages as low as possible.

This work stems from Dr. Handschumacher's discovery of a molecule called cyclophilin that is believed to be a key cellular receptor for cyclosporine. Dr. Lorber hopes that by using an assay that measures not only intact cyclosporine, but also metabolites that bind with cyclophilin, he can gauge more accurately the degree of immunosupression and deliver more precise dosages of the drug.

Already his team has indications that some patients have much higher concentrations of cyclophilin-binding activity attributable to metabolites. This may indicate a great degree of immunosuppression.

Studies involving other immunosupressive drugs have suggested that a family of regulatory molecules, cyclophilin among them, may play an important role in immune response. "Our ultimate goal is to change what has been called selfnonself recognition, but short of that, better pharmacological agents must be developed," points out Dr. Lorber. "If I needed a transplant and you were the donor, the goal would be to somehow change my ability to recognize myself as different from you." He adds that this research also may lead to safer and more specific drugs with fewer side effects.

Transplantation research has implications for other fields, as well. For example, some studies involving cyclophilin touch on such immunological questions as the molecule's role in T lymphocytes. Also, work on lung preservation has contributed to understanding blood pressure and flow within various organs, which in turn may help advance the treatment of congenital heart disease.

Dr. Baldwin believes that heart-lung transplants for patients with cystic fibrosis, which he initiated at Stanford in 1986, may ultimately help thousands of people with the disease who will not get transplants. So far, he notes, cystic fibrosis has not developed in the new lungs of transplanted patients, even though many of these people are still colonized by disease organisms. So by transplanting normal tissues into cystic fibrosis patients, physicians can now judge the relative importance of genetic versus inflammatory or infectious factors in the progression of the disease.

What Price Victory?

To Dr. Baldwin, such benefits help counter criticism about the high cost of the transplants he undertakes—about \$100,000 for a heart or heart-lung operation. Nevertheless, the high price of transplantation raises many ethical considerations.

For instance, to get on the waiting list for a transplant, a patient not only has to meet a number of medical criteria; his or her finances must be cleared by the hospital, as well. While this does not pose a problem for most insured patients whether covered by private companies or by Medicaid, some people are without any such coverage. These unfortunate



Commenting on the advent of xenografts, the implantation of animal organs into humans, Dr. John C. Baldwin notes: "Patients will accept this when they are faced with a fatal disease just like they accepted transplantation when it was new and very strange."



Dr. John Hammond (right) explains to Ron Evans, a research assistant, how a purified protein binds to an MHC gene. Dr. Hammond's research explores the biological mechanisms of organ rejection.

patients and their families must raise money for surgery as best they can.

Problems also can arise when a new transplant procedure is being introduced and third-party coverage is not yet established. When the first liver transplant in the state was performed at Yale-New Haven Hospital in the early 1980s on a child covered by Medicaid, there were questions as to whether the state government would pay for the operation. The state eventually did.

Shortly after the operation, the director of the state Department of Income Maintenance called on Dr. Myron Genel, professor of pediatrics and associate dean for government and community affairs, for help in planning for such policy decisions. As one who helped draft the National Organ Transplant Act of 1984, Dr. Genel agreed to chair the Transplant Advisory Committee, which establishes guidelines for Medicaid payments for transplants. Dr. Genel says the criteria are substantially the same as those used by physicians to determine if a patient is medically in need of a transplant.

Given the scarcity of donor organs, even logistical considerations take on ethical overtones. A transplant patient who is accepted for Yale's waiting list has his or her case entered into a computer that is connected with the regional New England Organ Bank and the national United Network of Organ Sharing. Patient information includes age, weight, blood type and severity of condition. As organs become available, the computer programs match them with a recipient, taking into account the geographic proximity of the donor and potential beneficiary.

Not everyone agrees with the system, including Dr. Raphael Zahler, assistant professor of medicine and a transplant cardiologist.

"The sicker the patient is, the higher he is on the priority list," Dr. Zahler points out. "What that means, practically speaking, is that patients who are doing very well have to wait until they are near death before they get a heart. It's very stressful for them. I wish the system could be changed so there's a little less tilt towards the critically ill people, provided that hearts aren't wasted."

Dr. Zahler would also like to see younger patients get priority. "I'd hate to see a 19-year-old die waiting for a heart when somebody in his 60s does get one."

The trauma of being on a waiting list is just the beginning of the psychological journey of transplant patients. "We try to prepare them for an emotional roller-coaster ride," says Dr. Zahler. "There is this initial euphoria when they get the heart. Then there's the sobering realization that if their body rejects the organ, they must come back to the hospital. We work really hard to make sure our patients have the support system to handle this. We have psychiatrists and social workers seeing most of our patients."

Claire Sylvia, the heart-lung transplant recipient, says even quick, dramatic physical recovery requires psychological adjustment. "Going from someone who is very sick and incapacitated for a long time and going toward death, to overnight becoming a fully active person again is totally mind-boggling," she says.

As the transplantation field advances, success stories like Claire Sylvia's should become more commonplace.

"We've not even yet scratched the surface of the field's potential," suggests Dr. Lorber. "There's no reason from a scientific point of view to expect that we're not going to solve many of these problems that seem insurmountable. I'm incredibly excited about the prospects."

YM

TRANSPLANTATION: ETHICAL CHALLENGES

Do organ transplants play a major role in medicine today?

Many people are alive and healthy today who 30 years ago would have been dead. In most cases, they're getting their organs from people who, being dead, have no more use for them. The exceptions, of course, are some kidney transplants and, most recently, partial liver transplants that come from live donors.

How does one determine that a donor patient has died?

We follow a set of formal and quite rigid criteria. Most importantly, the patient must be determined brain dead. Our criteria for brain death are such that the patient's recovery would have to be virtually without precedent.

So only after that determination is made, tissue typing can begin?

That's right. The other standard rule is that the transplant team makes no contact with the donor patient's family until it's been decided that the patient is brain dead.

How much "say" does the donor and the donor's family have regarding donating organs?

It is entirely their choice. Many people have "organ donor" printed on their driver's license to anticipate such contingencies. If the potential donor has left no instructions, then the family can decide whether organs or other tissue can be donated. The Uniform Anatomical Gift Act authorizes the same people to make these decisions as those who would be responsible for an autopsy.

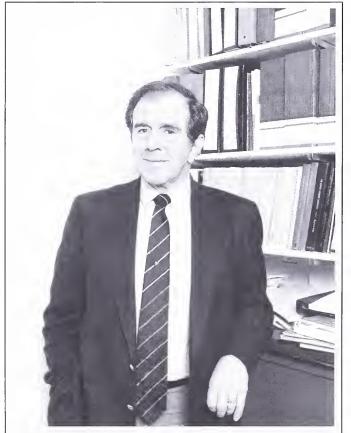
Is that a federal or state law?

It's state law, but it's called uniform because it's approximately the same in every state. There's a national uniform law commission. When its members think identical standards should be in place across the country in a matter that's within the jurisdiction of the states, the commission drafts model laws for the states to adopt. In fact, the Uniform Anatomical Gift Act has an interesting Yale connection. In the mid-1960s, Dr. Alfred Sadler and his identical twin brother, Blair Sadler, an attorney, took the lead in drafting the law. They later came to Yale to begin the physician associate program.

Who receives transplants? How is that determined?

For each type of organ transplant, there are different criteria. If according to these criteria you're in the high-priority group, then it depends on how long you've been high priority. In

This interview was conducted by Gregory R. Huth, publications editor for the School of Medicine's office of public information.



Dr. Robert J. Levine

Photographs by James Anderson

Alumnus Profile: Dr. Robert J. Levine, HS '62-'63

Dr. Robert J. Levine, HS '62-'63, worked as an instructor at the School of Medicine in 1964, before becoming an assistant professor of medicine and lecturer in pharmacology the following year. In 1973, he was named professor. He has chaired the medical school's Human Investigation Committee from 1969 to 1971, 1973 to 1975 and continuously since 1977. Dr. Levine is editor of *IRB:* A Review of Human Subjects Research, the journal of hospital and medical school review boards. He also serves as president of the American Society of Law and Medicine and is called on frequently to testify before state and federal legislative committees on matters of health policy and medical ethics.



Dr. Margaret J. Bia examines a kidney transplant patient of surgeon William H. Marks. The young man pictured here is among the 40 percent of kidney transplant patients who have undergone the operation because of complications from diabetes.

general, these criteria are based on how long you're likely to live without a transplant, and also, how long you're likely to live if you do receive one.

By way of illustration...

Let me give you a crude example. You don't want to transplant a heart into somebody who has metastatic cancer. The heart may work perfectly, but the patient's likely to die of the cancer. Other criteria may be less obvious. There's some controversy, for example, as to whether you should provide a heart transplant to someone who has no social and family support network. Statistically, such patients don't do as well. On the other hand, this puts some already unfortunate people at an even greater disadvantage. There are also criteria in some programs having to do with whether the patient has a record of good compliance with medical advice. That, too, has been a very controversial criterion.

Organ transplants are very expensive procedures. Do you have to prove you can pay for it before you receive an organ?

1 believe that now there is coverage by Medicare, Medicaid and other third parties. But for a long time that was a problem. In the early days of heart transplantation, the costs were running about \$100,000. Candidates had to post a bond. Liver transplantation was even more expensive. Patients had to post a bond, 1 believe, of \$150,000.

What about uninsured people who are not covered under Medicaid or Medicare? Are they considered?

They will be considered, but that means that somebody has to pick up the bill. Sometimes you see campaigns to raise funds

for a particular individual; these stories tend to get a lot of play in the media. And sometimes there just is no way to pick up the bill, and the procedure does not get done. This is a problem with transplants and other so-called "big-ticket" items.

Why have third-party payers been reticent about paying for transplants?

Because they are so expensive. When a new procedure is introduced, there is usually a transitional period of about one to three years when third-party payers tend to classify the new technique as research. After this time, an increasing number of third-party payers agree to reimburse for such procedures.

Is there any pattern to this transition?

Nothing formal. Usually the military or the Veterans Administration hospitals are the first to accept new procedures as standard practice. Medicare and Medicaid follow shortly thereafter, and then finally the insurance companies.

Speaking of Medicare and Medicaid, some people say that the advent of expensive, high-technology medicine is forcing us into an age of health-care rationing.

Every time you want to introduce a costly new procedure, you're faced with the policy question of whether it's worth the expense. We're right there now with the artificial heart.

For the sake of budgeting Medicaid funds, some states have begun to limit the number of organ transplants.

A couple of states have cut off liver transplants altogether. One state did it with a message that they would rather see the money spent for preventive care for children.

The policy question seems to be whether expensive, highly technical medical procedures are skewing costs to benefit a few at the expense of the majority.

Yes. And we tend to talk about it in terms of dramatic, "bigticket" items, like heart transplants. But we have to guard against overgeneralization even with these procedures.

How so?

If we increased the number of heart donors in this country to the maximum, we could double the number of transplants to about 2,000 a year. The whole transplant package might come to, in round figures, about \$100,000 per patient, including lifetime follow-up. We're looking at about \$2 billion, total. That is a lot of money, but we now spend more than that for this nation's end-stage renal disease program which includes transplants and dialysis. What I'm getting at is that a natural limitation exists on how much we can spend on heart transplants because we have a limited number of donors. Fortunately, relatively few young people die.

You've raised the issue of the organ donor shortage. What can be done to encourage more donations?

Some states like New York have passed "routine request" laws. If someone dies who could be eligible as a donor, the law requires the doctor to request a donation. Most states have no such requirement, and so many people who could donate do not.

Have the results of routine request laws been worth more government intervention in the doctor-patient relationship?

Doctors have difficulty bringing such matters up with families when relatively young, healthy people have died, say, in an auto accident. In New York, prior to the law, even when accident victims had "organ donor" listed on their driver's license, doctors weren't bringing up the issue with the family.

Would you advocate a uniform routine request law?

If that's the best we can do to encourage more organ donations, then yes, I'm in favor of it.

Earlier you had mentioned the artificial heart. When that becomes fully developed, the finite pool of organ donors will no longer serve as a natural barrier to costs.

That's right. With an expected average survival of five years, per patient costs including maintenance are estimated at \$100,000. An advisory group to the National Heart, Lung and Blood Institute projects that annually about 17,000 to 35,000 candidates could use an artificial heart in this country.

Using the figures you quoted, that's potentially 17 to 35 times the current number of heart transplants.

Here we're moving into a different order of magnitude. And we also have to take into account "technology creep."

What's that?

Policy makers tend to make initial projections that are too low about how many people will be eligible for new procedures.

With the artificial heart, perhaps only people up to age 65 will be eligible. But as soon as the device is out there, and you're facing somebody 66- or 67-years old who's dying of heart failure, it's hard to say, "Sorry, you didn't make the age limit." For this reason, the initial eligibility criteria are gradually extended to include more and more people. That's why so many of these programs turn out to cost far more than expected.

To complicate matters, some have advocated that organ donors or their families should receive some payment. After all, it seems everybody involved in the process gets paid except the source of the life-giving organ.

In 1985, the National Organ Transplant Procurement Act outlawed any payment for organs or tissues, with the exception of what it calls "replenishable tissues," such as blood and sperm.

Do you agree with this legislation?

Outlawing payments for organ donations is probably a good idea. The main concern, I think, is with live organ donations. Before the law was enacted, we saw a newspaper advertisement offering a kidney for \$30,000. You can just imagine what would cause somebody to do such a thing.

What other pressing issues are on the horizon regarding transplants?

We're already confronting a major issue in fetal brain cell transplants. We've done five of them at Yale. Surgeons take fragments of tissue from the midbrain of an aborted fetus, freeze them, and then transplant them into the midbrain of patients with Parkinson's disease. The researchers hope that these transplanted cells will begin producing dopamine to correct deficiency of dopamine that causes some of the symptoms of Parkinsonism.

The Bush administration has banned federal government funding for all fetal tissue transplant research. What's your opinion of this policy?

I think the administration's doing the wrong thing. When the Reagan administration first declared a temporary moratorium in the spring of 1988, it set up a mechanism for providing advice on whether the moratorium should be made permanent. The director of NIH (the National Institutes of Health) was delegated this responsibility. He established the Fetal Tissue Transplantation Research Panel. Twenty-two people with expertise in various relevant fields got together, heard testimony, did studies, and ended up voting on a series of recommendations. There was a near consensus vote to end the moratorium. No more than three negative votes were cast on any recommendation that suggested lifting the moratorium, given certain safeguards like not paying for fetal tissue. These recommendations were forwarded to the NIH director's standing advisory committee, which unanimously endorsed the recommendations. Then the report and recommendations were returned to the secretary of Health and Human Services. In October 1989, the secretary said that despite the report, he was making the moratorium permanent. He said it was because fetal tissue research would encourage more abortions, but this issue was specifically addressed in the panel's safeguards. I strongly disagree with the federal government's current policy regarding fetal tissue research.



WITHER THOU GOEST

by Dr. Richard Selzer, HS '61

"Braindead," said the doctor. "There is no chance that he will wake up. Ever. Look here." And he unrolled a scroll of paper onto her lap.

"This is the electroencephalograph. It's nothing but a flat line. No blips." Hannah bowed her head over the chart. The doctor cleared his throat, took one of her hands in both of his and leaned toward her as though about to tell a secret. Hannah submitted to what under any other circumstances she might have considered presumptuous, submitted because she thought she ought to. It was expected of her. The formality of the occasion, and all.

"Hannah, it is three weeks since your husband was shot. The only thing keeping him alive is the respirator."

Hannah waited for the walls of the solarium to burst.

"I'm asking you to let us put an end to it, unplug the machinery, let him go. There is just no sense in prolonging a misfortune." Hannah felt that she should say something, not just sit there, but for the life of her she couldn't think what. The doctor was speaking again.

"But before we do that, we would like your permission to harvest Sam's organs for transplantation."

"Harvest?" said Hannah. "Like gathering in wheat?"
"Yes," said the doctor. "That is what we call it when we take the organs. It is for a good cause. That way your husband will live on. He will not really have died..."

"Dead is dead," said Hannah.

"I know, I know," said the doctor. And he looked down at his feet for relief. Hannah noticed that he was wearing oxblood, wing-tip shoes of a large size. They were the shoes of power.

A week later she received a letter from the doctor.

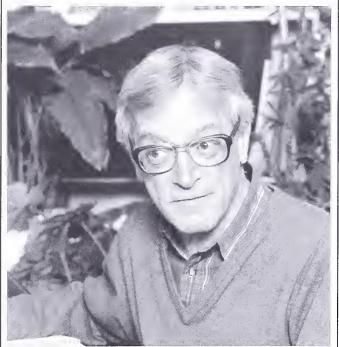
Dear Mrs. Owen.

You will, I know, be pleased and comforted to know that because of your generosity and thanks to the miracle of modern science, seven people right here in the state of Texas are living and well with all their faculties restored to them. Your husband's liver has gone to a lady in McAlpine; the right kidney is functioning in Dallas; the left kidney was placed in a teen-aged girl in Galveston; the heart was given to a man just your husband's age in a little town near Arkansas; the lungs are in Fort Worth, and the corneas were used on two people right here in Houston...

Hannah folded the letter, put it back in its envelope and then into the bottom drawer of the desk without reading to the end. There was no need. She already knew what had become of the rest of Sam. She had buried it in the family plot of the Evangelical Baptist Church cemetery.

That was three years ago. And still, she had only to close her eyes to have the whole of the horror spring vividly before

An earlier version of this story appeared as "The Heart" in Northeast Magazine, The Hartford Courant, March 1988.



Dr. Richard Selzer

Alumnus Profile: Dr. Richard Selzer, HS '61

In 1971, Dr. Richard Selzer, a noted general surgeon and associate clinical professor at the School of Medicine, had his first fictional work published—a horror story—in Ellery Queen's Mystery Magazine. Publication affirmed his sternly disciplined routine of retiring early in the evening, awakening at 1 a.m. to write until 3, and then sleeping again until 6 a.m. to prepare for a full day's work in Yale-New Haven Hospital's operating rooms. He undertook this schedule for 16 years, until at age 56, after having published four books of essays and short fiction that explored his inner life as a surgeon, Dr. Selzer laid scalpel to rest in deference to the pen.

"It was a Faustian bargain," he comments. "As a writer, I had to strip off the layers of insulation, to remove the professional distance that is required of a surgeon. In a sense, the choice was made for me."

Today, Dr. Selzer's works have been translated into many languages. Two more books will soon be published, Imagine A Woman, a collection of short fiction, and the first volume of his diary, entitled A Mile-and-a-Half of *Ink.* Currently he is engaged in "an homage to Edgar Allan Poe," completing the gothic master's short story "The Lighthouse." Dr. Selzer's childhood idol, Poe died after writing only a few pages of a first draft.

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her, as though it had been painted on the inside of her eyelids. For Sam's thirty-third birthday they had spent the weekend at the beach. Now they were in the pick-up truck on the way back to Houston. Hannah had fallen asleep. It was the sudden stop that woke her up.

"We couldn't be there already," she murmured.

"No," said Sam. "I'm just going to change that Iady's tire." Hannah sat up and saw the green Buick pulled off to the side of the road. The right rear tire was flat. An elderly woman sitting behind the wheel looked up and smiled when she saw Sam walking toward her with a car jack in one hand and the tire iron in the other. Hannah got out of the truck and went over to talk. "Bless you," the woman said. Sam hadn't given that jack more than half a dozen pumps when the Mexican appeared out of nowhere with a gun in his hand.

"Sam?" she had said in that low questioning voice that always made him turn to see if she was upset. For a long moment Sam stayed where he was, crouched over the jack. When at last he stood, he had the tire iron in his hand.

"What do you want, Mister?" he said. The Mexican made a gesture as if to turn a key and nodded at the pick-up.

"The keys are in the truck," said Sam. The Mexican made no move. Perhaps he did not understand? Sam raised his arm to point. The Mexican fired. It took a long time for the echo of that shot to peter out. When it had, the truck and the Mexican were gone, and Sam lay on his back wearing a halo of black blood. He was still holding the tire iron. Something pink squeezed slowly out of the middle of his forehead.

Dead is dead, she had told that doctor. But now three years later she wasn't so sure. For Hannah had begun to have doubts. Incidents occurred, like the time months ago when she had gone to the butcher's. Just ahead of her at the counter a woman had ordered a chicken. I want it in parts, she heard the woman say. Hannah had watched as the butcher cleaved the carcass through the middle of the breast, hacked off its thighs, legs and wings, and scooped out the entrails. The heart, gizzard, neck and liver he put in a small plastic bag.

"You can keep the feet," said the woman. And then it was Hannah's turn.

"What'll it be?" said the butcher. And wiped the clots from his fingers onto his apron.

"What do you call that?" she asked, trying not to look at his bloody hands. As though they were his privates.

"What do you call what?"

"What you just did, cutting up the chicken. What is the name for it?" The butcher stared at her blankly.

"It's called 'cleaning a chicken.' Why?"

"Cleaning?"

"Look, Miss," said the butcher, "I'm real busy. What'll it be?" But Hannah had already turned to leave.

It was after that that she stopped going to the cemetery to visit the grave. It wasn't Sam in that cemetery, not by a long shot. It was only parts of Sam, the parts that nobody needed. The rest of him was scattered all over Texas. And, unless she had been misinformed, very much alive. And where did that leave her? God knows it was hard enough to be a widow at the age of thirty-three, and her sympathies were all with those women whose husbands had truly, once and for all, died. But widowhood, bleak as it might be, seemed preferable by a whole lot to the not-here, not-there condition into which she had been thrust by 'the miracle of modern science.' At least, if your husband were all dead, you could one day gct over it and go on with your life. But this! This state of bafflement. Maybe, she wondered, maybe it was a matter of percentage. If more than fifty percent of your husband was dead, you were a

widow? Whom could she ask?

Along with doubt came resentment. Oh, not just at the doctors. They simply do what they want to anyway without really thinking. Doctors, she decided, don't think. They just do, and cover it all up with language. What was worse, she had begun to resent Sam. Here she was, living in this sort of limbo, while he, Sam, was participating in not one but seven lives none of which had anything to do with her. It wasn't fair. Even if he hadn't chosen it, it wasn't fair.

Hannah's cousin Ivy Lou was also her best friend. Lately she had taken to bringing her lunch over to eat at Hannah's house. One day when she got there, Hannah was standing at the kitchen window, looking out into the backyard. Over the radio came the pitched monotone of a preacher. The subject was the Resurrection of the Flesh.

"And it says right here in First Corinthians, chapter fifteen:

For the trumpet will sound, and the dead will be raised imperishable.

And here it is again in Romans, chapter eight, verse eleven:

If the spirit of him who raised Jesus from the dead dwells in you, he who raised Christ Jesus from the dead will give life to your mortal bodies."

"Turn that damn fool off," said Hannah.

"For Goodness sake!" said Ivy Lou. "What's got into you?" Four years ago Ivy Lou had been born again.

"It's a big lie," said Hannah. "It's the way the preachers swindle you."

"I'm sure I don't know what you are talking about," said Ivy Lou.

"There is no such thing as the resurrection of the flesh," said Hannah. "Just tell me at what stage of life we are supposed to be on the day of resurrection, so-called? Do we look as we did when we were babies? At age forty? Or as we are when we die? Old and wasted. And tell me this: What about Samuel Owen on your Resurrection day? Here he is scattered all over Texas, breathing in Forth Worth, urinating in Dallas and Galveston, digesting or whatever it is the liver does in McAlpine. They going to put him back together again when the Day comes, or is it to the recipients belong the spoils? Tell me that."

"Well," said Ivy Lou. "I don't have the least idea about any of that, but I do know that you are committing the sin of blasphemy. Hannah, I'm real worried about you. Don't you believe in God anymore?" Hannah looked out the window and was silent for a long moment.

"About God," she said at last, "I have only the merest inkling. That's all anyone can have."

Hannah could not have said exactly when the idea first occurred to her. Later, she thought it might have been on the day of the tornado. From the kitchen window her eye had been caught by a frenzy of leaves in the live oak. All that August morning it had been sultry and still, until, all at once, it turned dark as twilight. Then lightning came to tear open the clouds. And the air, as if desperate to announce great tidings, broke its silence and turned to wind. But such a wind! At the height of the storm Hannah opened the back door and stood to receive the force of the rain on her face, her hair. It stung like pebbles. The violence lasted but a few minutes after which it settled into a steady drizzle. Then, as abruptly as it had come, the storm passed and the sun came out leaving Hannah with the feeling that something more than the

humidity had been relieved. Something, a pressure that had been building inside her, had boiled its way to the surface, then broke. That very night she awoke suddenly and sat bolt upright in bed, and she clapped her hand over her mouth as if to hold back what threatened to burst forth from it. A scream? Laughter? She didn't know what. But what she did know, beyond peradventure of doubt, as though it had been a revelation, was what it was she must do. She had been dreaming, and in her dream, she saw two men lying on narrow tables next to each other. One of them was Sam; the other she could not see clearly. His features were blurred, out of focus. Both of the men were stripped to the waist, and their chests were open in the middle, the two halves raised like cellar doors. A surgeon was there, dressed in a blue scrub suit, a mask and cap. As she watched, the surgeon reached his hands into Sam's chest and lifted forth his heart, held it up like some luminous prize. At that moment, Hannah could see into the chests of both men, see that they were both empty. Then the surgeon turned away from Sam and lowered the incandescent, glowing heart into the chest of the other man who promptly sat up, put on his shirt and walked away.

What was instantly made clear to her—it was so simple—was that she must go to find that man who was carrying Sam's heart. If she could find him, and listen once more to the heart, she would be healed. She would be able to go on with her life.

In the morning, Hannah wondered whether she were losing her mind. She began to interrogate herself. Why would she do such a thing? What good would it do? To say nothing of the intrusion on the life of a perfect stranger. What made her think he would agree to let her do it? How could she explain it to him when she could not even explain it to herself? What would she say? Would it be like a pilgrim visiting a shrine? No, it had nothing to do with worship. Did she just want to make sure that Sam's heart had found a good home? For God's sake, it wasn't a dog that she had given away. Nor was she the least bit curious about the man himself other than to know how to find him. The more she thought about it, the more she felt like a woman whose husband had been declared missing in action in a war. What would she have done if that were the case? Why, she would bend every effort to find him—living or dead—even travel to Vietnam or Laos, wherever, and she wouldn't leave until she knew, one way or the other.

Perhaps it *was* a phantom she was chasing, a phantom that would dissolve when she drew near. But she would have to take that chance.

Hannah went to the cupboard where three years before she had placed the doctor's letter, the one telling her about the seven transplantations. She read it again, this time to the end. Hannah made a list. The kidneys, liver and lungs, she decided, were hidden deep away in the bodies of those who had received them. How could she possibly get to them? The corneas just didn't seem right. She didn't think she could relate to a cornea. That left the heart. A heart can be listened to. A heart can be felt. And besides, there had been her dream. She would seek to follow the heart. But then there was that man, that other, who had lain on the table next to Sam and whose face she had not been able to see. What if he refused her, mistook her intentions? No, she would explain it to him, write it all in a letter and then he would agree. He would have to.

Once she had decided, it was not difficult to get his name and address, a few of the facts of his illness. Hospital records, she learned, were scandalously accessible to whoever might want to see them, whatever the hospitals swore to the contrary. Anyone who really tried could get to see them—lawyers hunting for malpractice suits, legal assistants, reporters, detectives, graduate students gathering statistics, nurses, insurance companies. It was in this last guise that Hannah called the record librarian of the University Hospital and made an appointment. She had followed it up with a letter on official stationery of the Southwest Casualty and Life Insurance Company. She had had to take Ivy Lou into her confidence.

Ivy Lou worked as a secretary for Southwest.

"I don't like it one bit." Ivy Lou was appalled. "No good will come of it." And at first she had refused. "I just don't see what you could possibly hope to get out of it." When Hannah didn't answer, lvy Lou went on:

"Why?" she said. "Just tell me why."

It was after that that she stopped going to the cemetery to visit the grave. It wasn't Sam in that cemetery, not by a long shot. It was only parts of Sam, the parts that nobody needed. . .

"I don't know why," said Hannah. Perhaps it was something like the way a flower can't help but face the sun, or the way a moth goes to the flame.

"Just don't tell anyone where you got it," said lvy Lou when she brought the stationery.

The next week at the hospital, the record librarian welcomed her with a smile, and showed her to a cubicle where the chart was waiting for her. "Henry Pope," she read. "Age: 33. Next of Kin: Mrs. Inez Pope. Children: None. Address: 8 Orchard Road, Avery, Texas. Diagnosis: Cardiomyopathy, viral. Surgery: Heart Transplant." Reading on, she learned of his "intractable heart failure", that his prognosis had been "hopeless"—he had been given an estimated life expectancy of a few months "at most".

And then she came to the part about the operation which occupied the bulk of the fat chart, and none of which she read. There was no need.

"That didn't take long," said the librarian as Hannah walked by her desk.

"No," said Hannah. "I'm quick."

Avery, Texas. Hannah and Ivy Lou looked for it on a map.

"There it is," said lvy Lou. "Way up almost into Arkansas, but Hannah I am telling you don't. You are making the biggest mistake of your life."

That night, Hannah sat at her kitchen table with a pen and a blank sheet of paper. *Dear Mr. Pope*, she wrote, then set down the pen. There was something absurd about that *Mr.* considering that she had been married for seven years to a significant part of the man. But she would let it stand. The situation called for tact, patience, diplomacy. There would be plenty of time for Dear Henry if and when. She picked up the pen and continued.

Dear Mr. Pope,

My name is Hannah Owen. Could the name mean anything to you? Doubtless not, considering the decorum with which these things are done. I am the wife (some say

widow) of Samuel Owen, the man whose heart is even now beating in your chest.

Perhaps you will forgive a woman's curiosity? I am writing to ask how you are since the operation. Your early discharge from the Intensive Care Unit, and even from the hospital itself—three weeks! It might be a record of some kind. It would follow that you have continued to improve and that by now, three years later, you have completely regained your health? I surely do hope so. It is my dearest wish that the heart is doing as good a job for you as it did for Sam and for me too. Do let me hear from you, please.

Yours truly, Hannah Owen

There, she thought, that should do it. Nothing whatever to arouse suspicion or to make anyone wonder. Only the shock of who she was. After that, just an expression of well-meaning concern. When she dropped the letter in the slot at the post office and heard the soft siffle as it went down the chute, she sighed. It had begun.

It was two weeks before she saw the envelope in her mailbox written in neat handwriting in black ink. It was postmarked Avery, Texas. How it shook in her hand.

Dear Mrs. Owen,

It was very kind of you to write asking after my husband's health. He is not much of a letter-writer and has asked me to tell you that he is stronger and healthier than he has been in years. He says he is the luckiest man on earth. By the way, however did you get hold of our name and address? I had thought such information might he protected, under the circumstances, but—I guess not. Thank you for your interest.

Sincerely, (Mrs.) Inez Pope

Dear Mr. Pope,

I don't know any other way to say it than to just take a deep breath and come right out with it. What I am going to ask will seem at first quite insane. But I assure you I am no maniac. I want to come and listen to your heart for the space of one hour at a time when it is convenient for you. While I know that at first this request will seem strange to you, I pray that you will say yes. You have no idea how important it is to me.

Yours truly, Hannah Owen

Dear Mrs. Owen.

My husband and I have tried to understand your position. But we feel that it would not be at all wise for you to come here. Not that we aren't grateful and all of that, but you have to admit it is a little on the bizarre side. So this is goodbye.

Sincerely, (Mrs.) Henry Pope

P.S. We have consulted with our doctor who says it is a terrible idea and perhaps you should get some professional attention to get over it. No offense meant.

Dear Mr. Pope,

Your wife does not wish to let me come. I can understand her hesitation. The awkwardness and all. And perhaps, it is only human nature, a touch of suspicion. Perhaps I have ulterior motives? I assure you, Mr. Pope, that I do not. As for my interest in you personally, it is limited to you as the carrier of something I used to possess and which I for one reason or another would like to see again. Or rather, hear again. For that is all I want to do—to listen to your heart for the space of one hour. The way a person would like to go back to visit the house where he had grown up. Your doctors don't think. They are unaccustomed to it. No, speak to me not of doctors. They haven't the least idea about the human heart except to move it from place to place.

Yours truly, Hannah Owen

Dear Mrs. Owen,

I am very sorry. But the answer is still no. And that is final. Ever since I got your first letter, I've been feeling awful. Like an ingrate or something. But I know in my heart it wouldn't be a good thing for you either.

Sincerely yours, Henry Pope

Dear Mr. Pope,

In case you do not know, my husband was shot in the head by a bandit on the highway where he had stopped to help an old lady with a flat tire. I was there. After three weeks on the respirator, they came and told me it was no use, and could they disconnect the respirator? But just before they did that could they take parts of his body (harvest is the word) to transplant to other people. I said yes, and so they took his liver, lungs, heart, corneas and kidneys. There are seven of you out there. You, Mr. Pope, got the heart, or more exactly, my heart, as under the law, I had become the owner of my husband's entire body at the time that he became "brain dead". Don't worry, I don't want it back. But I do ask you to let me come to Avery for one hour to listen to your heart. It is such a small thing, really, to ask in return for the donation of a human heart. Just to listen. For one hour. That is all, really all. The reasons are private, and anyway, even if I wanted to tell you why, I don't know if I could put it into words. If you see fit to let me come, I will never bother you again, and you will have repaid me in full. Do please let me know when I can come.

Yours truly, Hannalı Owen

P.S. Of course your wife can be in the room all the time. Although frankly, I would prefer otherwise. Mrs. Pope, what I want to do is no more than what dozens of nurses have done—listen to your husband's heart. Only the reason is different. Couldn't you look at it as just another medical check-up?

Dear Mrs. Owen,

You said there were seven of us recipients. Why me? Or do you plan a statewide rennion with all your husband's organs? And the answer is NO! Please do not keep writing as it is annoying to say the least, and it is making my wife nervous.

Sincerely, Henry Pope



Dear Mr. Pope,

You ask "Why you?" And you are right to ask. It is because you have the heart. The others—the liver, lungs, kidneys—I can't get to them. As for the corneas, well, I just can't relate to corneas somehow. But the heart! A heart can be felt. It can be listened to. A heart is reachable. That's why you.

Yours truly, Hannah Owen

When there had been no reply for two weeks, Hannah wrote again.

Dear Mr. Pope,

Please.

Yours truly, Hannah Owen

Dear Mrs. Owen,

No Goddannit and if you don't stop this business and get the hell out of my life, I'm going to notify the police.

Sincerely yours, Henry Pope

Dear Mr. Pope,

And so your answer is still No. Oh, can you imagine how sad I am? Now I am the one who is disheartened. Never mind. I will try to accept it, as I have no alternative. You said I can't come and so I won't. I shall not be bothering you and your wife again. You can relax. I can't resist saying one more time, although it doesn't matter anymore, that I was the owner of the heart. It was mine to give. I think I did mention to you that the body of the deceased is the property of the next of kin. It wasn't Samuel who was the donor at all. It was me. But that is all water over the dam. Now may I ask you for a much smaller favor? I would like to have a photograph of you for my scrapbook. Nothing, for goodness sake, posed or formal. Just a casual snapshot would be fine. Chalk it up to foolish sentiment. Thank you and goodbye.

Yours truly, Hannah Owen

For three weeks Hannah prowled the house, smoking the cigarettes of disappointment, settling into her despair. Ivy Lou was frankly worried. But she knew better than to suggest a psychiatrist, or minister, for that matter, in view of that resurrection business.

"Hannah," she said. "You have got to pull yourself together and get over it. It was a lousy idea in the first place. What's going to be the end of it?"

"I really don't know," said Hannah.

And then there it was, lying at the bottom of her mailbox like a dish of cream waiting to be lapped up. She could tell that handwriting anywhere. No need to look at the postmark. Stifling the rush of excitement, she waited till she was back in her kitchen, sitting at the table, before she opened it. The sole content was a snapshot. No letter.

Hannah studied the photograph. It was three by four inches, black and white. The next size up from passport. It showed, at some distance, a thin dark-haired man slouched against the trunk of a tree, his right knee flexed at right

angles, with the sole of his foot braced against the tree. A live oak, she thought, from the girth. His hands bulged the pockets of a zip-up jacket. He wore a baseball cap and was looking off to the left, the head turned almost in profile. The face, what she could see of it, was unremarkable, the eyes shaded by the peak of a cap gave away nothing. Only the dark seam of a mouth expressed suffering. Even with the help of a magnifying glass, she could read no more on that face. It was possessed of no mystery. Only flat, beaten. Compared to the large color photograph of Sam that she kept on the mantel in the parlor, with its generous smile that held nothing back, the snapshot in her hand was of a sick man who had known pain and expected more of it. He looked twenty years older than Sam, although she knew they were the same age. This was taken before the operation, she decided.

But that he had sent it! Actually looked for and found the photograph, then put it in an envelope and *mailed* it. That heart is working, she thought. Hannah smiled and fixed herself a tuna salad sandwich and a glass of milk.

She waited exactly two weeks, it wasn't easy, before she answered.

Dear Mr. Pope,

Thank you so much for the photo. I have put it in my scrapbook. My friend Ivy Lou who is sort of an actuary has calculated that your face occupies 2.1% of the picture and what with the cap, you are a bit hard to make out. But, still. I like your backyard, is it? Are those azaleas on the right of the live oak you are leaning against? I have a live oak in my backyard too.

Sincerely yours, Hannah Owen

Six weeks later, another letter arrived.

Dear Mrs. Owen.

My wife Inez will be in Little Rock visiting her parents on the weekend of October 20. If you still want to come, I don't see why not so long as you just stay for one hour. I will expect you at the house at 10 o'clock Saturday morning. You know where it is, I'm sure.

Yours truly, Henry Pope

"I wouldn't drive if I were you," said Ivy Lou. "Not wound as tight as you are. Why you're as nervous as a bride. See if there's a bus." It was the first piece of Ivy Lou's advice Hannah thought she should take. She didn't trust herself to drive. Besides, she wanted the time to think, to prepare herself. Like a bride, she thought, agreeing for the second time with Ivy Lou, but she quickly shooed that notion out of her mind. There was an early morning bus that got to Avery at nine thirty. The next day before dawn, Hannah was on it. But once on the bus, she couldn't think, only reached up now and then to touch her right ear which, when the bus stopped in Avery, would become a barnacle that would attach itself to the rock of Henry Pope's chest and cling through whatever crash of the sea.

Number eight was one of a dozen identical single-family ranch houses that made up the dead-end that was Orchard Road, only this one ennobled by the big live oak at the back which fringed and softened the flat roof. At precisely ten o'clock Hannah unlatched the front gate and walked up to the door. Before she could ring the bell, the door opened halfway.



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"Come in," he said keeping himself out of sight until the door was closed behind her. The house was in darkness, every shade and blind having been drawn and shut. It had a furtive, tense look which was exactly what she saw on the face of the man standing before her. There was no hint of the bright sunshine from which she had entered.

"No need to call attention," he said. "It would be hard to explain if anyone saw you come in." He was, she saw, a healthy man who looked even younger than she knew him to be. He had put on at least twenty pounds since that picture had been taken. His hair was light brown, almost blond, and curly. He was wearing jeans and a white T-shirt.

He's nervous as a cat, thought Hannah, and that makes two of us,

Hannah followed him into a small room, a den furnished with a sofa, an upholstered easy chair and a television set. One wall was lined with bookshelves. She guessed that he had spent his convalescence in this room.

"It's your show," he said. "How do you want me?" When she didn't answer, he reached up with both arms and pulled the T-shirt over his head.

"I suppose you want this off," he said. Then for the first time Hannah saw on his chest the pale violet stripe that marked the passage of her husband's heart into this man. Hannah felt her pulse racing. She might faint.

"Well, it's your show," he said again. "How do you want to do this? Come on, let's just get it over with. One hour, you said."

"Best, I think for you to lie down flat," she said. "I'll sit on the edge and lean over." She had gone over it so many times in her mind. He lay down and slid a small pillow beneath his head, then shifted as far as he could to give her room to sit. When she did, he rose abruptly to his elbows.

"Where is your stethoscope?"

"I don't have a stethoscope."

"How are you going to listen to my heart without a stethoscope?"

"They didn't always have them," she said. "I'm going to listen with my ear." She gave her right ear two short taps. "I have very good hearing," she said because he looked dubious, as though he might call the whole thing off. But he didn't, and lay back down staring straight up at the ceiling and with his arms at his sides as though he were still a patient at the hospital waiting for some painful procedure to be done.

Then Hannah bent her head, turning toward the left, and lowered first to her elbows, then all the way, lowering her ear toward his left, his secret-sharing nipple. When she touched his skin, she could feel him wince.

Oh, it was Sam's heart, alright. She knew the minute she heard it. She could have picked it out of a thousand. It wasn't true that you couldn't tell one heart from another by the sound of it. This one was Sam's. Hadn't she listened to it just this way often enough? When they were lying in bed? Hadn't she listened with her head on his chest, just this way, and heard it slow down after they had made love. It was always like a little secret that she knew about his body, and it made her smile to think of the effect she had on him.

And Hannah settled and gave herself up to the labor of listening. Closing her eyes, she drew herself down, down into that one sense of hearing, shedding sight and touch and all her other senses, peeling away everything that was not pure hearing until the entire rest of her body was an adjunct to her right ear, something added on to it, and she was oblivious to whatever else might be in the world. She listened and received the deep regular beat, the emphatic *lubdup*, *lubdup* to which with all her own heart she surrendered. Almost at once,

she felt a sense of comfort that she had not known in three years. She could have stayed there forever, bathed in the sound and touch of that heart. Thus she lay until her ear and the chest of the man had fused into a single bridge of flesh across which marched, one after the other, in cadence, the parade of that mighty heart. Her own pulse quieted to match it beat for beat. And now it was no longer sound that entered and occupied her, but blood that flowed from one to the other, her own blood driven by that heart that lay just beneath the breast whose slow rise and fall she rode as though it were a small boat at anchor in a tranquil sea, and she were a huddled creature waiting to be born.

At last Hannah opened her eyes and raised her head. Never, never had she felt such a sense of consolation and happiness. Had it been a dream? Had she fallen asleep? It was a moment before she felt his arm about her shoulders. How long, she wondered, had she lay encircled and unaware? She looked up to see that he was smiling down at her. Angels must smile like that, she thought.

"You were trembling," he explained. "It was like holding a bird."

Gently, Hannah disengaged herself and stood, but listening still, cocking her ear for scraps of sound, echoes. And it seemed to her in the darkened room that light emanated from the naked torso of the man and that the chest upon which she had laid her head was a field of golden wheat in which, for this time, it had been given to her to go gleaning.

Henry Pope followed her to the door.

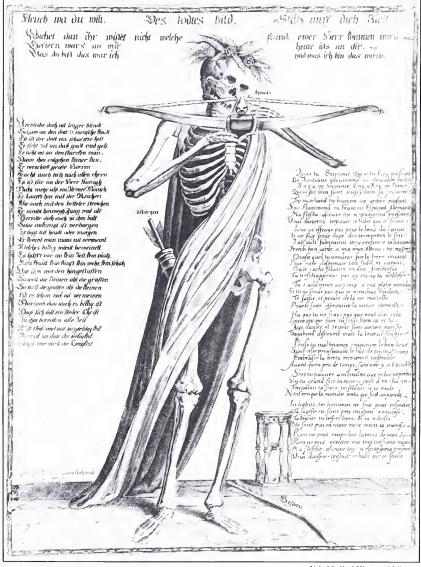
"Will you want to come again, Hannah?" he asked. How soft and low his voice as he uttered her name.

"No," said Hannah. "There will be no need." And she stepped out into the golden kingdom of October with the certainty that she had at last been retrieved from the shadows and set down once more upon the bright lip of her life. All the way home on the bus a residue of splendor sang in her ears.

YIVI

GALLERY

Fleuch wa du wilt, Des todtes bild, Staetz auff dich zielt



Yale Medical Historical Library

by Gerhart Altzenbach

The subject of this 17th-century German engraving is the inevitability of death. The headline warns the hapless reader, "Flee where you will, but the picture of Death is aiming at you." And indeed, Death focuses an arrow irrevocably at the viewer.

The relentlessness of the predator Death is suggested by the spent arrow of yesterday on the tiled floor, tomorrow's arrow resting in the quiver, and that of today readied for its victim. The hourglass underscores that for mortals, time is forever running out.

The print effectively uses texts to complement the personification of Death as an elegant archer who never

misses his mark. On either side of the bowman are verses in German and French affirming that not even royalty is exempt from Death's arrows. In fact, the owner of this print is instructed to display the image so that today's arrow is pointed at the reader in an unnerving fashion.

Gerhart Altzenbach was a publisher of prints who lived in Cologne during the 17th century. Many of the works he published involved architectural and biblical subjects. Although Altzenbach is known primarily as a publisher, some engravings—including the one featured here—have also been attributed to him as as artist.

—Janice Braun, Yale Medical Historical Library

SCOPE



Molecular picture: three years in the making.

Researchers Produce RNA X-ray Pictures

Dr. Thomas A. Steitz, professor of molecular biophysies and biochemistry, and his colleagues have obtained the first picture of the genetic code early in its translation into the basic components of life. The discovery, made through x-ray crystallography, is the first detailed picture of how one synthetase, a catalyzing enzyme, recognizes a compatible tRNA and helps attach the right amino acid to it. Professor Steitz believes the discovery will help decipher the genetic code and enhance scientific understanding of fundamental life processes.

The three-dimentional pieture, which took nearly three years to determine, shows the L-shaped tRNA molecule on the surface of the synthetase enzyme, enabling its identity to be "read." It also shows how the two molecules meet at numerous points along the inner side of the L-shaped tRNA molecule.

X-ray erystallography, the bombarding of crystals with x-rays, enables scientists to determine a molecule's structure with great detail and to produce a computer-graphic image.

Dr. Steitz collaborated with Dieter

Soll, Ph.D., professor of molecular biophysies and biochemistry, and graduate students Mark A. Rould and John J. Perona.

Psychiatrists Suggest Steroids May Addict

Drs. Kenneth B. Kashkin, assistant professor of psychiatry, and Herbert D. Kleber, professor of psychiatry, are warning that athletes who use anabolic steroids long-term may be at risk of addiction. Some estimates suggest that as many as one million Americans—including 250,000 high school seniors—spend up to \$100 million annually on black market steroids to improve athletic performance.

The review of scientifie literature, which appeared in the Dec. 8 edition of the *Journal of the American Medical Association*, suggests that difficulty in quitting the drugs may be complicated by increased irritability, impaired judgment, anxiety, panie and paranoid delusions. In one study, all users of anabolic steroids met the criteria for major depression within three months of abstinence. The physicians suggest further study to test their addiction theory.

On Aug. 3, the U.S. Senate

confirmed Dr. Kleber as deputy director for demand reduction at the federal Office of National Drug Control Policy.

Studies Confirm Drug Helps Cocaine Addicts

Data from recent human and animal research confirm that the painkiller buprenorphine shows promise as a treatment for coeaine addiction. The studies confirm previous findings by a School of Medicine team led by Dr. Thomas R. Kosten, associate professor of psychiatry, that the drug was up to 10 times more effective than methadone in treating patients addicted to both heroin and coeaine.

Harvard researchers reported in the journal *Science* that laboratory monkeys who habitually administered eocaine to themselves refrained from doing so after receiving shots of buprenorphine. And a study in *Biological Psychiatry* indicated that among 12 eocaine addicts who were switched from methadone to buprenorphine treatment, all but one eompletely stopped using eocaine; the subject who did not stop cut back eocaine use by 60 percent.

Dr. Kosten is now eoneluding a sixmonth follow-up study eomparing the effectiveness of buprenorphine versus methadone among 120 subjects addieted to both heroin and coeaine.

New YSM Study Targets Ovarian Cancer Clues

An experimental screening program began in December at the medical school to detect ovarian cancer in its earliest stages. Dr. Peter E. Schwartz, professor of obstetries and gyneeology, and colleagues have been gathering data on whether several techniques, including two recently developed at Yale, can detect the cancer early enough to reduce the death rate among women at high risk.

The study will foeus on two tumor markers identified by blood or urine tests that may indicate ovarian caneer earlier than standard diagnostic techniques.



Dr. William N. Hait

Researchers Awarded \$4.5 Million To Study Cancer Pharmacology

The National Cancer Institute has awarded the School of Medicine \$4.5 million over five years for a project entitled "Clinical Pharmacology and Cancer Chemotherapy".

Dr. William N. Hait, associate professor of medicine and pharmacology and chief of medical oncology, is leading a team of physicians and researchers to discover new pharmacological treatments for cancer. Dr. Hait also is associate director for clinical sciences at the Yale Comprehensive Cancer Center.

The grant extends research that has lead to such discoveries as using a combination of drugs sequentially to treat early breast cancer and employing a drug normally used with organ transplantion to combat certain forms of lymphoma. The project has also identified new drugs to make resistant cancer cells more receptive to chemotherapy.

The grant funds work by more than 45 biomedical researchers. Dr. Hait's team includes co-principal investigators Edwin C. Cadman, M.D., the Ensign Professor and chairman of medicine; Vincent T. Andriole, M.D., professor of medicine; Dennis L. Cooper, M.D., assistant professor of medicine; Robert E. Handschumacher, Ph.D., professor of pharmacology; Robert W. Makuch, Ph.D., associate professor of public health; William H. Prusoff, Ph.D., professor of pharmacology; Michael

Reiss, M.D., assistant professor of medicine; Alan C. Sartorelli, Ph.D., the Alfred Gilman Professor of Pharmacology; and Mary B. Todd, D.O., assistant professor of medicine.

Fetal Protein Tied to Lower Breast Cancer Risk

Biomedical scientists at Yale and the Albany Medical College in New York have found that pregnant women with elevated blood levels of alphafetoprotein—produced in the fetal liver and found in the amniotic fluid—have a 27 percent lower risk of later contracting breast cancer.

Writing in the *Journal of the National Cancer Institute*, W. Douglas Thompson, Ph.D., formerly of the medical school, and Dwight T. Janerich, D.D.S., M.P.H., professor of epidemiology and in the Comprehensive Cancer Center, and their colleagues noted that elevated levels of the protein causes high blood pressure in pregnant women; when found at very high levels early in pregnancy, it can lead to spina bifida. The research team analyzed data on 4,668 women with breast cancer and 4,635 cancer-free women.

Scientists Attempt To Forestall Early Births

The School of Medicine is leading a national study involving seven medical centers to examine whether antibiotics can delay the delivery time of premature births. Dr. Roberto J. Romero, associate professor of obstetrics and gynecology and director of the perinatal research unit, is acting as chairman of the two-year study that will divide \$1 million among the seven centers, including Yale, Columbia, Johns Hopkins and the University of Southern California.

The researchers will examine whether administering a combination of ampicillin and erythromycin—intravenously for two days and then orally for five days—can prolong the pregnancy of women whose amniotic fluid has been infected by genital tract flora. Volunteers would be administered either the drugs or a placebo if labor occurs prematurely.

Seven hundred women will be involved in the research, 100 of them at Yale-New Haven Hospital. Other

medical centers in the study include McGee, in Pittsburgh; Thomas Jefferson, in Philadelphia; and the University of Tennessee. Funding comes from the National Institute of Child Health and Human Development.



Dr. Thomas R. Kosten

\$10 Million Comes to Yale To Treat Drug Addicts

A \$10 million grant from the National Institute on Drug Abuse will speed the delivery of new medications to help hundreds of New Haven area IV drugusers kick the habit and thus reduce their chances for acquiring AIDS. Dr. Thomas R. Kosten, associate professor of psychiatry, will administer the five-year grant, which will involve the School of Medicine, Connecticut Mental Health Center (CMHC) and the APT Foundation, a locally based organization for drug addiction, prevention and treatment.

Attacking the drug problem on three fronts, the program will:

- Fund research at the medical school—involving both animal and human models—into new treatments for drug abuse.
- Create six in-patient beds at CMHC to treat psychiatrically impaired drug abusers for a 30-day period.
- Institute a relapse prevention program for cocaine-abusing pregnant women through the APT Foundation's outpatient clinics, and develop new treatments for substance abusers who are infected with the AIDS virus.

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FACULTY NEWS



Dr. Ezra E.H. Griffith

Dr. Ezra E.H. Griffith New Director of CMHC

Dr. Ezra E.H. Griffith, associate professor of psychiatry, has been appointed director of the Connecticut Mental Health Center (CMHC), a collaborative program of the State Department of Mental Health and the University. His appointment was announced by Michael F. Hogan, Ph.D., state commissioner of mental health, and Dean Leon E. Rosenberg.

Dr. Griffith has been associated with CMHC throughout his career. He served as acting director from September 1987 to December 1988, and previously was associate director for clinical affairs.

Established in 1965, CMHC provides community-based mental health services and supports University endeavors to generate knowledge about psychiatric disorders and educate professionals and allied health workers. With a staff of more than 400, annually CMHC treats more than 3,000 inpatients and outpatients with general psychiatric problems.

Dr. Griffith joined the Yale medical faculty in 1977 and also serves as an associate professor in the department of Afro-American studies. Since 1986, he has been a consultant to the Project HOPE Mental Health Program in the West Indian island of Grenada. In 1988, Connecticut Gov. William A. O'Neill appointed him to the Psychiatric Security Review Board.

In announcing Dr. Griffith's appointment, Commissioner Hogan said, "The Connecticut Mental Health Center is the foremost collaborative public/university mental health program in the country. We are confident that Dr. Griffith has the experience and skills to enhance the program even further, improving patient care, teaching and research."

Commented Dean Rosenberg: "Ezra Griffith's combined interests in transcultural and forensic psychiatry give him a unique background to lead the Connecticut Mental Health Center. Because of his expertise in the field of community mental health and his commitment to clinical care, he is superbly suited to direct CMHC."

Drs. Genel, Rosenberg Elected To AAMC Posts

Two top School of Medicine administrators, Drs. Leon E. Rosenberg and Myron Genel, have assumed key positions in the American Association of Medical Colleges (AAMC), the major advocacy organization for the nation's medical schools. Their election came Oct. 30 in Washington, D.C., at the AAMC's 100th annual meeting.

Dr. Rosenberg, dean of the School of Medicine, was elected to a three-year term on the AAMC executive council, the association's governing board. Members of this body are chosen from the Council of Deans, Council of Teaching Hospitals and the Council of Academic Societies, the AAMC's three component organizations. Dr. Rosenberg has served on the administrative board of the council of deans.

Dr. Genel, associate dean for government and community affairs, has been named chairman-elect of the Council of Academic Societies (CAS), and will become chairman in the fall of 1990. CAS comprises 93 distinguished academic and scientific societies in the biomedical field, with an active membership of 100,000. It provides a forum for medical school faculty and enhances their participation in formulating national policy related to medical cducation, research and patient care.

Since 1984, Dr. Genel, who also is professor of pediatrics in the School of Medicine and an attending physician at Yale-New Haven Hospital, has represented the American Pediatric Society to the CAS. He has served on the CAS board since 1987.

Scientific Symposium Honors Medical Dean

Five internationally known biomedical scientists spoke on Dec. 8 at a symposium to honor Dr. Leon E. Rosenberg upon completion of his first five-year term as dean.

The symposium, sponsored by department chairmen, section heads and center directors in the medical school, was held in Brady Auditorium and was followed by a reception at the Arthur Ebbert Lounge, located in the Hope Building.

William Konigsberg, Ph.D., professor and former chairman of the department of molecular biophysics and biochemistry and professor of human genetics, moderated the program which featured:

- Stephen Krane, M.D., the Persis, Cyrus and Marlow Harrison Professor of Medicine at Harvard Medical School: "Genetic Approach to Understanding Collagenase Action";
- Ira S. Mellman, Ph.D., associate professor of cell biology and that department's director of medical studies at Yale: "From Human Genetics to Endocytosis";
- Daniel Foster, M.D., the Donald W. Seldin Distinguished Chair in Internal Medicine and chairman of the department of internal medicine at the University of Texas, Southwestern Medical Center at Dallas: "CPT System: From Diabetic Ketoacidosis to Sudden Death";
- Arthur Horwich, M.D., associate professor of human genetics and pediatrics at Yale: "Lessons from Dysfunctional Enzymes";
- Vincent T. Marchesi, M.D., Ph.D., the Anthony N. Brady Professor of Pathology and professor of cell biology and of biology at Yale, and director of the Yale Center for Molecular Medicine: "From Cyto-Skeletal Proteins to Molecular Medicine".



Dr. John E. Schowalter

John Schowalter Named First Solnit Professor

Dr. John E. Schowalter, professor of pediatrics and psychiatry, has been named the first Albert J. Solnit Professor of Child Psychiatry. The newly endowed professorship was established in January 1989 with a \$1 million gift from Mr. and Mrs. Saul Z. Cohen of Larchmont, N.Y.

Dr. Schowalter also is an attending pediatrician and psychiatrist at Yale-New Haven Hospital, and since 1982 has been chief of child psychiatry at the Child Study Center. Dr. Schowalter's contributions to the field of adolescent development were recognized recently when he was elected for a two-year term as president of the American Academy of Child and Adolescent Psychiatry.

He has served since 1984 on the scientific advisory board of the Sophia Foundation for Medical Research in Rotterdam, the Netherlands. His recent research has focused on children's perceptions of terminal illness.

In 1961, Dr. Schowalter came to New Haven for one year as a pediatric intern at Yale-New Haven Hospital. He returned as a fellow in child psychiatry at the Child Study Center from 1963 to 1965. He began his faculty career at Yale as an assistant professor in 1967, the same year he was named chief psychiatric consultant at Yale-New Haven's pediatric adolescent service. He was named associate professor in 1970 and in 1975 was promoted to professor.

Commenting on Dr. Schowalter's

appointment, Dr. Albert J. Solnit, the Sterling Professor in the Child Study Center, Pediatrics and Psychiatry said, "I am delighted that John Schowalter has been appointed as the first Albert J. Solnit Professor. He will bring distinction to the chair as clinician, teacher and scholar. John Schowalter represents a continuation and elaboration of interests and values that led to the establishment of this endowed chair."

Rodin Panel Calls for More Minority Faculty

A faculty panel headed by Judith Rodin, Ph.D., professor of psychology, psychiatry and medicine, has called on the University to hire greater numbers of minority professors.

The committee, appointed by President Benno C. Schmidt Jr. in April 1988, has recommended increasing the number of tenured minority professors from 5.7 to 8 percent within 10 years. The number of non-tenured minority faculty should increase from 8.8 percent to 14 percent, the report recommended.

Lowell Levin To Edit International Journal

Lowell S. Levin, Ed.D., M.P.H., '60, professor of public health, will serve as the first editor of the *International Journal of Iatrogenic Complications*. The quarterly journal, associated with the Copenhagen-based International Society for the Prevention of Iatrogenic Diseases, will begin publishing in February 1991.

Dr. Levin explains that although "iatrogenic" translates literally as "physician-produced", the study of such problems encompasses the negative consequences brought on by any segment of the increasingly complex health care system. When any part of that system harms patients either by accident, negligence or incompetence, the ramifications are not only medical, but legal, social and economic, as well.

Hence, each article submitted to the periodical will be reviewed by a jury of three readers from various disciplines, rather than the two readers used by many journals.



Dr. Leonard K. Kaczmarek

Dr. Kaczmarek Named Pharmacology Chairman

Professor Leonard K. Kaczmarek, Ph.D., has been named chairman of the pharmacology department at the medical school. Dr. Kaczmarek, a native of the United Kingdom, received his Ph.D. degree from the Charing Cross Hospital Medical School, the University of London, England. He came to Yale as an assistant professor in 1981 and became an associate professor in 1985. In 1988, he received his full professorship with a joint appointment in pharmacology, and molecular and cellular physiology.

An editor of the *Journal of Molecular Neuroscience*, *Journal of Experimental Biology*, and *The New Biologist*, Dr. Kaczmarek also has edited three books and authored more than 100 articles. His research focuses on the role protein kinases play in regulating prolonged changes in the excitability of the brain's neurons. Such research has possible implications for better understanding epilepsy and other brain disorders.

Dean Leon E. Rosenberg commented, "It is with great pleasure that I welcome Leonard Kaczmarek to chair the department of pharmacology. He has distinguished himself both as a teacher at this medical school and as a researcher into brain functioning at the cellular and molecular levels. Dr. Kaczmarek's energy and imagination make him the right person to lead this department into the 1990s."

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YSM Scientists Assist AIDS Clinical Trials

A panel of leading biomedical researchers from the School of Medicine will help the Hill Health Center (HHC), a New Haven community health clinic, implement a \$772,000 contract to help blacks and Hispanics enter AIDS drug trials. The two-year, renewable agreement with the National Institutes of Health is intended to help members of minority groups get access to promising experimental drugs that may combat the AIDS virus or slow its progress.

Committee members include: Dr. Ralph I. Horwitz, professor of medicine and epidemiology (committee chairman); Richard A. Flavell, Ph.D., professor of immunobiology; Dwight T. Janerich, D.D.S., M.P.H., professor of epidemiology and in the Child Study Center; and Dr. Joseph B. Warshaw, professor and chairman of pediatrics.

Since April 1989, the panel has been advising the HHC on a similar, \$75,000 contract with the American Foundation for AIDS Research. Proposals for both agreements were developed with the help of Deputy Dean Robert M. Donaldson, M.D., and Hal G. Aaslestad, Ph.D., associate dean for research administration.

Four Faculty Members Named Outstanding Medical Specialists

Four faculty members at the School of Medicine were named "Outstanding Specialists in the U.S." in the November issue of *Town and Country* magazine. They are the only Connecticut physicians to be honored by the magazine.

- Dr. Alan H. DeChemey, the John Slade Ely Professor of Obstetrics and Gynecology at the School of Medicine and section chief of ob/gyn endocrinology at YNHH;
- Dr. John C. Hobbins, professor and assistant chairman of ob/gyn and professor of diagnostic radiology;
- Dr. Frederick Naftolin, chairman and professor of ob/gyn and professor of biology;
- Dr. Peter E. Schwartz, professor of ob/gyn and section chief of ob/gyn oncology at YNHH.



Dr. Joan S. Steitz holds a model of an RNA molecule.

Professor Joan Steitz Warren Prize Winner

Joan S. Steitz, Ph.D., professor of molecular biophysics and biochemistry at the School of Medicine and investigator at the Howard Hughes Medical Institute, was named one of this year's two recipients of Massachusetts General Hospital's Warren Triennial Prize. She is the first woman to win the award in its more than 30-year history. Dr. Steitz presented a lecture entitled "Small Nuclear Ribonucleoproteins: Diversity in Form and Function," at the award ceremony in October.

Dr. Steitz, a past recipient of the National Medal of Science, was honored for her contributions in investigating the structure and function of several species of ribonucleic acid (RNA). Her discovery that certain RNA components have a number of varying functions in the cell has advanced understanding of the basic formation process of RNA.

Twelve of the 26 Warren Prize recipients have gone on to gamer the Nobel Prize, including Dr. George E. Palade, Sterling Professor Emeritus in Cell Biology at the School of Medicine.

FACULTY NEWS

Dr. Thomas T. Amatruda Jr., '51, clinical professor of medicine, and Dr. James D. Kenney, '52, clinical professor of medicine and associate dean for postgraduate and continuing medical education, were honored in October with Laureate Awards by the American College of Physicians. Dr. Amatruda was honored as a leader in the field of internal medicine and endocrinology and for his contributions to graduate and postgraduate medical education at Yale and at Waterbury Hospital. Dr. Kenney was noted for his outstanding ability as a clinical teacher and his contributions to postgraduate education, as well as his guidance of a continuing education program through the mail, sponsored by the Medical Letter and the School of Medicine.

Elizabeth C. Bellis, M.P.H. '64, M.U.S., lecturer in public health, was given the 1989 C-E.A. Winslow Award by the Connecticut Public Health Association at its annual meeting in November. It is the association's highest award. Ms. Bellis was cited as "an individual who for three decades has helped shape the educational policies, the curriculum, and the social conscience and mission" of the department of epidemiology and public health.

Dr. Paul W. Brown, clinical professor of orthopaedic surgery and plastic and reconstructive surgery, was honored by the U.S. Ski Team in recognition of his work with amputee skiers during the Vietnam war and his development of the U.S. Amputee Ski Program. The award ceremony, hosted by Ivana Trump, was held Nov. 2 at the New York Plaza Hotel. Dr. Brown was presented his award by Jack Benedick, a former amputee ski pupil, and captain of the U.S. Disabled Ski Team.

Dr. Joseph E. Craft, assistant professor of medicine, and Dr. Daniel W. Rahn, assistant clinical professor of medicine, serve on the Lyme Disease Awareness Task Force of the Arthritis Foundation, Connecticut Chapter, which received a national award for excellence in public education. The award was presented at the Arthritis Foundation's national meeting in St. Petersburg, Fla., in September. Task force members prepare and distribute

posters and videotapes about Lyme disease, present lectures, attend health fairs, write articles for health publications, prepare and distribute displays, and sponsor scientific seminars.

Dr. Mark R. Cullen, '76, associate professor of medicine and epidemiology and director of the occupational medicine program, is one of nine experts selected to evaluate the U.S. Department of Energy's health research program. The panel is scheduled to provide a final report March 15 evaluating attempts to determine the health effects on department workers exposed to low-level radiation at nuclear facilities.

Dr. Nicholas H. Fiebach, assistant professor of medicine, has been appointed director of internal medicine at Yale-New Haven Hospital's Primary Care Center. Dr. Fiebach plans to expand services in the community and offer patient education to reduce highrisk health behavior.



Dr. Thomas Patterson

Dr. Myron Genel, associate dean of government and community affairs, and Dr. James P. Comer, associate dean for student affairs, have been selected to serve on a 31-member citizens task force on drug and alcohol abuse for the city of New Haven. The task force was formed to help the city in its bid for a portion of a \$26.4 million drug-fighting grant to be awarded to eight communities across the nation by the Robert Wood Johnson Foundation. New Haven would use the grant to develop a community-wide system of drug prevention and treatment.



Toasting the laureate: An informal champagne reception at the School of Medicine held by Dean Leon E. Rosenberg celebrated the announcement of Sidney Altman, Ph.D., Sterling Professor of Biology, as co-recipient of the 1989 Nobel Prize in biology. Here Dr. Altman, second from the right, poses with three medical school colleagues (from left): Dr. Sherman M. Weissman, Sterling Professor of Human Genetics; Daniel DiMaio, M.D., Ph.D., associate professor of human genetics; and William C. Summers, M.D., Ph.D., professor of therapeutic radiology.

In October 1989, Lowell S. Levin, Ed.D., M.P.H., '60, professor of public health, was made an honorary fellow of the Society of Public Health Educators at its annual meeting in Chicago. This highest honor bestowed by the society was given to recognize Dr. Levin's leadership in promoting self-care internationally.

Dr. Thomas Patterson, assistant professor of medicine, received a Young Investigator Award sponsored by Merck, Sharp and Dohme. Dr. Patterson was given \$2,500 to continue his research on the diagnosis and treatment of invasive aspergillosis; the evaluation of the kinetics of aspergillus antigenemia in experimental models; and the determination of the effect of host defenses on circulating antigen and dissemination of disease and development of new therapeutic regimens for improving therapy for invasive aspergillosis.

Dr. William H. Prusoff, professor of pharmacology, received an honorary degree from the University of Cagliari, Sardinia, Italy, after his lecture presentation in October entitled "Molecular Approaches for the Development of Antiviral Drugs" at the International Symposium on Antiviral Chemotherapy in Porto Cervo.

Dr. Nicholas P.R. Spinelli, '44, YSM's director of alumni affairs, was presented with a chairman's award citation in October by the Yale University Alumni Fund. He was given the award in honor of his fund-raising efforts among medical school alumni during the past five years.

Dr. Ulrich Weil, clinical professor of orthopaedics and rehabilitation and medical director of the Physician Associate Program, was made an honorary member of the German Association of Orthopaedics and Traumatology. He was presented the honor during the opening ceremony of a convention in Karlsruhe, West Germany, in October. The association honors a member who has been instrumental in forging connections with the United States.

Dr. Eiji Yanagisawa, clinical professor of otolaryngology, was one of five otolaryngologists worldwide chosen to give special lectures at the Sixth World Congress of Bronchoesophagology held in Tokyo, Oct. 15-18. His lecture was entitled, "Videography of the larynx." Dr. Yanagisawa also made two presentations on "Simultaneous velolaryngeal videoendoscopy" and "Contribution of aryepiglottic constriction to ringing voice quality," at a satellite meeting in Kyoto.

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ALUMNI NEWS



Linda Schwartz: veteran advocate.

Linda Schwartz Tapped For Veterans Committee

November 1989 proved to be memorable for Linda Schwartz, R.N., M.S.N., former air force nurse and a third-year doctoral student in public health. Early in the month, she was appointed by the U.S. Secretary of Veterans Affairs to the Committee on Readjustment Problems of Vietnam Veterans. Then, on Nov. 28, President George Bush signed into law a bill for which she had testified before Congress—granting federal government sanction for erecting a memorial to the women who served in the Southeast Asia conflict.

Ms. Schwartz herself served during the Vietnam era, and is treasurer of the Vietnam Women's Memorial Project, which spearheaded the drive to erect the memorial near the Vietnam Veterans Memorial on the Mall in Washington, D.C. Having received the federal go-ahead, she and other organizers are hard at work raising the remaining \$1 million in private funds needed to begin the \$2.2 million project.

Ms. Schwartz says that her work on the 10-member veterans advisory panel will complement her dissertation research, in which she intends to focus on the health and social problems of veterans. One in 10 Vietnam veterans has been homeless at some time, she points out, while 500,000 suffer from post-traumatic stress disorder.

Female veterans of all eras, she notes, have a 45 percent incidence of cervical cancer, while women with no military service have only a 9 percent chance of acquiring the disease.

Anne Towe Wins Prize For Creative Writing

Anne Towe, '92, has won the 1989 Marguerite Rush Lerner Prize for excellence in creative writing by a Yale medical student. Ms. Towe's winning short story. "The Pacifier," deals with the events surrounding the death of a boy, four years old, as seen through the eyes of his 6-year-old sister. An excerpt follows:

"We walked hand in hand until we reached the parking lot. Monnny sat in the front seat of Daddy's car. I started toward the back door, but she opened the front door and asked if I would sit in her lap. She hugged me so hard that I pulled away first. Then Daddy told me that Paul had gone to live with Baby Jesus and that we all must be brave. When Monnny cried, her tears wet the back of my neck..."

Dr. Norton Canfield, '33-'36 HS, of Miami, Fla., retired from his otolaryngology practice and is promoting a book he edited, *Victory Over Migraine*, by Rodolfo Low. The book describes causes of and treatments for migraine headaches.

Dr. Frank H. Horton, '47, '47-'50 HS, has retired to Maine after 39 years of pediatric practice.

Dr. John B. Morrison, '48, of Orange, Conn., retired from private practice in May.

Dr. David Geddes, '48-'49 HS, is clinical professor of psychiatry at the University of California, Irvine, College of Medicine.

Dr. Charles N. Poskanzer, '50, has been named a distinguished professor by the State University of New York Board of Trustees for his outstanding service to the university, community, state and nation. Dr. Poskanzer continues a 40-year career with SUNY Cortland and currently serves as a professor in the department of health.

Dr. Thomas T. Amatruda Jr., '51, '51-'55 HS, retired in April after 18 years as clinical director and director of medical education at the Waterbury Hospital, Waterbury, Conn. He has established a consulting practice in endocrinology and metabolism and is clinical professor of medicine at Yale.

Dr. Maurice L. Bogdonoff, '52, who has retired from Rush Medical College as emeritus professor of radiology and medicine, is a visiting lecturer at Maine Maritime Academy.

Dr. Frank R. Coughlin Jr., '52, was sworn into the Connecticut bar in June and is a medical malpractice attorney with the law firm of Kramer, Dillof, Tessel, Duffy & Moore in New York City.

Dr. John B. Atwater, '55, who retired in September after 16 years as health officer for Washtenaw County, Mich., will continue to serve on the faculty at the University of Michigan School of Public Health and as acting medical director for Genesse Co. He also consults for various public health agencies.

Dr. Joshua A. Hoffs, '57, is a clinical professor of psychiatry at the University of California, Los Angeles and a training and supervising analyst at the Los Angeles Psychoanalytic Institute. Dr. Hoffs' abstract paintings were exhibited at the Palazzetti Gallery in Los Angeles this summer.

Dr. Hugh V. Firor, '57-'60 HS, is head of the section of pediatric surgery at the Cleveland Clinic Foundation.

Dr. Ormand V. Brody, '60, retired from family practice last year. He is a fellow of the American Academy of Family Physicians.

Dr. Paul J. Friedman, '60, is working with the American Association of Medical Colleges' section for operational studies to analyze data from its faculty roster for a study of faculty mobility and attrition. Dr. Friedman is associate dean and professor of radiology at the University of California, San Diego, School of Medicine.

Dr. Alfred G. Gilman, '62, the Willie Professor of Pharmacology at the University of Texas Southwestern Medical Center, received the 1989 Albert Lasker Basic Medical Research

Award for his contributions to cell biology research. His studies concentrate on how a cell perceives and reacts to the thousands of messages it receives. He was honored specifically for his discovery of G proteins, a family of membrane-bound proteins that serve as intermediaries between incoming signals and the cellular proteins.

Dr. Harrison Dunn, '63 HS, is Medicare director at Meriden-Wallingford Hospital in Meriden, Conn.

Dr. Lee B. Talner, '63, has been selected a fellow of the American College of Radiology.

Dr. Diane K. Shrier, '64, is professor of clinical psychiatry and director of the division of child and adolescent psychiatry at the University of Medicine and Dentistry of New Jersey.

Dr. Raul Walder, '66 M.P.H., is senior research associate virologist at the center of microbiology and cell biology and chief of the animal virus laboratory at the Instituto Venezolano de Investigaciones Cientificas, Caracas, Venezuela. His research is concerned with differential virus-cell/host interaction and heterogeneity of virulence markers of the encephalitis alphaviruses and retroviruses such as HIV. Dr. Walder is also professor of virology at the center of advanced studies and head of the technology center at the institute. He is professor of arboviral epidemiology at the International Malariology School of Advanced Studies, Ministry of Public Health, Venezuela, and is a member of



Dr. Frederick G. Adams, Burian-Moss '70 M.P.H.



Dr. Joshua A. Hoffs, '59



Arthur Purzycki

the National AIDS Committee and the National Arbovirus Committee.

Dr. David H. Shapiro, '67-'71 HS, clinical associate professor of surgery at the University of Southern Florida School of Medicine, is serving a second term as governor of the American College of Surgeons. He also is a member of the Society for Clinical Vascular Surgery and the Florida Society for Clinical Oncology.

Connecticut State Health Services Commissioner, Dr. Frederick G. Adams, '70 M.P.H., was inducted as a fellow of the International College of Dentists at the Nov. 3 annual convocation in Honolulu. Before his 1987 health services appointment, Dr. Adams chaired the state's Commission on Human Rights and Opportunities, and from 1969 to 1980 served at the University of Connecticut as ombudsman and special assistant to the president, dean of the School of Allied Health Professions, vice president for student affairs and services and professor of allied health. He also served as an advisor to the late Ella T. Grasso when she was Connecticut governor and initiated a new federal health planning law in the state.

Dr. Morris B. Mellion, '70, associate professor of family practice and orthopedic surgery and rehabilitation at the University of Nebraska Medical Center, was reelected speaker of the Congress of

Delegates of the American Academy of Family Physicians (AAFP). He also chairs the AAFP Task Force on Sports Medicine and is the team doctor for men and women's sports at the University of Nebraska.

Dr. Mark J. Magenheim, '71 M.P.H., was awarded the U.S. Public Health Service Medallion for Excellence and a U.S. Surgeon General's Certificate of Appreciation by Dr. C. Everett Koop in a ceremony in April, 1989. He was awarded the certificate in recognition of his work in HIV public policy as a model for the nation's health officers. Dr. Magenheim is a health officer for Sarasota County, Fla., and an associate professor at the University of Southern Florida.

Dr. Robert B. Diasio, '71, was named chairman of the department of pharmacology at the University of Alabama at Birmingham. He also is a professor of pharmacology and medicine and director of the division of clinical pharmacology. Dr. Diasio chairs a National Institutes of Health (NIH) clinical cancer chemotherapy study group, serves as a consultant to international pharmaceutical firms and is a member of the NIH's experimental therapeutics study section. He has received an NIH MERIT Award to provide funding through 1997 for his research on cancer chemotherapy.

Dr. Paul A. Vignola, '71, '74 HS, associate professor of medicine at the

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University of Miami School of Medicine, was appointed director of the cardiovascular and catheterization laboratory of the Miami Heart Institute.

Dr. James N. Campbell, '73, was appointed professor and associate director in the department of neurosurgery at Johns Hopkins University. In 1988, he received the Frederick W. L. Kerr Award for Pain Research from the American Pain Society and a Jacob Javits Neuroscience Investigator Award.

Dr. Robert H. Posteraro, '73, '76-'80 HS, is chairman and professor of the department of radiology at Texas Tech School of Medicine.

Dr. Harry S. Romanowitz, '73, who was recertified in general pediatrics by the American Board of Pediatrics, chairs the department of pediatrics at Stamford Hospital in Connecticut.

Dr. Edward L. Marut, '74, is director of the division of reproductive endocrinology at Michael Reese Hospital in Illinois. He is also director of the fertility center of Michael Reese Hospital North.

Dr. Frederick S. Sherman, '75, is director of perinatal cardiology at Magee-Women's Hospital and a member of the cardiology division of the Children's Hospital in Pittsburgh.

Dr. O'dell Owens, '76, director of reproductive endocrinology and infertility at Christ Hospital in Cincinnati, returned to New Haven in October to deliver a lecture entitled "Making a Difference." The talk was part of the Academic Mentorship Program in the Sciences at Yale.

Dr. Phyllis C. Leppert, '79, was appointed chief of obstetrics and gynecology at Rochester General Hospital and associate professor at the University of Rochester. She is a member of the U.S. Congress Office of Technology Assessment Advisory Panel on Technology and Children's Health and on the program committee of the National Perinatal Association. In 1989, she received the Berlex Foundation's International Research Award, enabling her to work in Hachioji, Japan.

For the past several years, **Susan L. Schwartz**, '80 M.P.H., has been



William Sabella, '83 M.P.H.

working as a producer for Children's Television Workshop. Having concluded her involvement with the highly acclaimed public television series, "3-2-1 Contact", she is developing programs that educate children regarding health issues.

Dennis J. Skrajewski, '80 P.A., is vice president for administrative services at Lakes Region General Hospital in Laconia, N.H.

William Sabella, '83 M.P.H., AIDS education coordinator at Yale-New Haven Hospital, was given an AIDS Leadership Award by Connecticut Department of Human Services Commissioner Frederick G. Adams, D.D.S., '70 M.P.H. Mr. Sabella was cited for his "early and outstanding involvement in AIDS education" as the

state department of health's first AIDS coordinator from 1983 to 1987.

Dr. William A. Petit Jr., '85-'87 HS, has joined the practice of C.D. Collins, M.D., in Plainville and Bristol, Conn. He specializes in diabetes and endocrinology. He has been appointed assistant clinical professor of medicine at Yale and is president-elect of the American Diabetes Association, Connecticut Affiliate.

John L. Phillips, a second-year medical student, was among 47 students selected to receive a research training fellowship from the Howard Hughes Medical Institute. The Medical Student Research Training Fellowship is a new program that enables students to spend one year doing basic research full-time in laboratories of their choice. A 1987 graduate of Wesleyan University, Mr. Phillips will serve his fellowship with Mark C. Horowitz, Ph.D., assistant professor of orthopaedics and rehabilitation and dermatology at the School of Medicine.

Carolyn and Chris Wolf-Gould, fourth-year medical students, returned from eight months in Accra, Ghana, where they participated in clinical service, community health promotion and disease prevention projects. They also conducted studies which evaluated the morbidity and mortality of cerebral malaria, accuracy in clinical diagnosis, response of parasitemia to chloroquine treatment, and the use of over-thecounter medications. The Wolf-Goulds were in West Africa with 12 other students awarded International Health Fellowships by the American Medical Student Association Foundations.



Dr. Nicholas P.R. Spinelli, '44, receives a chairman's award citation from President Benno C. Schmidt Jr. in recognition of his many years of service to the Medical School Alumni Fund.

NEW BOOKS

The Primitive Edge of Experience, by Dr. Thomas H. Ogden, '72, Jason Aronson Inc., (New Jersey) 1989.

Care of the Dying Child, by Dr. Robert W. Buckingham, '72, Continuum Publishing, (New York) 1989.

The Three-Legged Stallion, by Dr. Siegfried J. Kra, associate clinical professor of medicine, W.W. Norton & Company, (New York) 1989.

Textbook of Otolaryngology-Head and Neck Surgery, by Dr. K.J. Lee, assistant clinical professor of surgery, Elsevier Publishing Co., (New York) 1989.

Lower Your Blood Pressure and Live Longer, by Dr. Marvin Moser, clinical professor of medicine, Villard Books, Random House, (New York) 1989.

OBITUARIES

Russell J. Barrnett, M.D.

Dr. Russell J. Barrnett died of a heart attack Aug. 21 at his home in Mashpee, Mass. He was 69.

Dr. Barrnett, professor of cell biology, began his 30-year career at Yale as an associate professor in the department of anatomy. He became professor and then chairman of anatomy while serving as director of graduate studies. For four years, he was professor and chairman for the section of cytology, and in 1978 became professor of cell biology and director of graduate studies. He was a pioneer in the development and application of techniques leading to the basic understanding of cell function, concentrating his studies on the organization of membrane ultrastructure in relation to biochemical function and membrane biogenesis.

A native of Boston, Dr. Barrnett received an A.B. degree from Indiana University in 1943 and an M.D. degree from Yale in 1948. He was a teaching and research assistant at both schools. Before his appointment at Yale, he served in the U.S. Army and interned at Beth Israel Hospital in Boston. For 10 years, Dr. Barrnett conducted research for the department of anatomy at Harvard Medical School and was a

visiting investigator in the cytology laboratory at Rockefeller University. From 1961 through 1976, Dr. Barrnett was one of the 300 most widely cited scientific authors in the world. He wrote more than 200 papers in his field.

During his career, he served as a visiting professor at McGill Medical School; University College, London; University of Palma; Helsinki Medical School, Finland; Kyoto Medical School, and the Federal University Medical School in Rio de Janero, Brazil.

Dr. Barrnett was a member of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the American Society of Cell Biology and the Connecticut Academy of Arts and Sciences. He was past president of the Electron Microscopy Society of America and of the Histochemical Society. He served as chairman of the American Association of Anatomy, the International Society of Histochemistry and Cytochemistry, and the International Federation of Electron Microscopy. He also served on several committees at the University and the School of Medicine, including the Board of Permanent Officers, the Ad Hoc Committee on Educational Policies, M.D./Ph.D. Executive and Admissions Committee, and the Medical School Council governance body and executive committee.

Dr. Barrnett was a member of the National Research Council's advisory panel for the committee on growth and the division of biology and agriculture; the Atomic Energy Commission division of biology and medicine; the World Health Organization medical research and education committee, and the biomedical space research program for the National Aeronautics and Space Administration.

He was on the editorial boards of Annales d'Histochemie, Journal of Ultrastructure Research, Acta Histochemica Cytochemica, Anatomical Record, and Journal of Histochemistry and Cytochemistry.

He is survived by his wife, Gail Voelker; two sons, Dr. Russell J. Barrnett Jr., and William Thomas Barrnett; a daughter, Elisa Barrnett; three stepchildren, Katia Spiegelman, Maia Spiegelman-Hunter and Eric Spiegelman; and four grandchildren.

Contributions may be made to the Russell J. Barrnett Research Fellowship Fund, c/o R.J. Barrnett Jr., M.D., Forest Road, P.O. Box 157, Greenfield, NH 03047.

Ignacio Bird, M.D.

Dr. Ignacio Bird died March 28 in Greensboro, N.C. He was 83.

Dr. Bird began his career as a radiologist at Herman M. Biggs Memorial Hospital in New York in 1934. In 1945, he was named chief of radiologic service at Wesley Long Community Hospital in Greensboro, where he served until his retirement in 1975

A native of Puerto Rico, Dr. Bird received an A.B. degree from Cornell University in 1926 and an M.D. degree from Yale in 1930. He was a member of the Medical Society of the State of North Carolina, the American Medical Association and the Radiological Society of North America. He was a fellow of the American College of Radiology, past president of the North Carolina Chapter of the American College of Radiology and a diplomat of the American Board of Radiology.

He is survived by his wife, Lucy Jennette Bird; three daughters, Juanita Linzey, Jeannie Wright and Christina Bird; two sons, Warren Bird and Dr. Richard Bird; and four grandchildren.

Memorial contributions may be made to Father Flanagan's Boys Home, Boys Town, NE 68010.

James F. Blades, M.D.

Dr. James F. Blades, former chief of staff at Retreat Hospital in Richmond, Va., died Aug. 21 at his home at age 81.

A Falmouth, Ky., native, Dr. Blades graduated from Kentucky Wesleyan College in 1930 and from the School of Medicine in 1934.

In 1941, he began as an instructor at the Medical College of Virginia and later became an assistant professor. During the 1950s, he served as chief of staff at Retreat Hospital and for 41 years had a private practice, until he retired in 1982.

He was a member of the Richmond Academy of Medicine, the Medical Society of Virginia, the Virginia Surgical Society and the Southern Medical Association.

He is survived by his wife, Mrs. Mary Grace Wilkey Blades; a daughter, Mrs. Barbara Burrows; and three grandchildren.

Memorial contributions may be made to Retreat Hospital or First Presbyterian Church in Richmond.

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Laurence B. Felmus, M.D.

Dr. Laurence B. Felmus, a retired clinical professor of obstetrics and gynecology, died Sept. 12 in Scottsdale, Ariz. He was 82.

A native of New York, Dr. Felmus was a graduate of Cornell University, and in 1931 received his M.D. degree from Yale. After completing postgraduate work in Dublin, Ireland, and at the University of Pennsylvania, he spent three years in military service during World War II.

He was an assistant professor at Downstate Medical Center in Brooklyn before becoming a founding member of the faculty at the Albert Einstein College of Medicine in 1955. He retired to Scottsdale in 1968.

Dr. Felmus is survived by his wife, Florence; two daughters, Linda Jessogne and Madeline Orloff; and three grandchildren.

R.W. Huntington, M.D.

Dr. Robert W. Huntington Jr., pathologist for 25 years at Kern General Hospital in Cambria, Calif., died July 14 at the age of 82.

Dr. Huntington was one of the first physicians in California to study the valley fever fungus. Before his retirement in 1975, Dr. Huntington had a local medical lecture series named in his honor and was instrumental in establishing the Huntington Foundation for Medical Education, a Bakersfield, Calif., non-profit organization that provides financial aid for local medical and nursing students.

In 1959, Dr. Huntington was one of nine doctors to receive a certificate in forensic pathology from the American Board of Pathology. In 1975, he was named "Member of the Year" by the Kern Medical Society and was honored that same year by the Kern Bar Association for his assistance to the legal profession for his testimony on death. He was a past president of the local chapters of the American Cancer Society and American Lung Association.

A native of Hartford, Conn.. Dr. Huntington received his medical degree from Yale in 1933. He served in the U.S. Navy Medical Division and earned the rank of commander. He also was a member of the faculty at the University of Southern California.

He is survived by his wife of 53 years, Katherine; a son, Dr. Robert W. Huntington III; two daughters, Edith

Huntington and Deborah Ward; and eight grandchildren. He was predeceased by his daughter, Ann Heldman.

Contributions may be sent to St. Paul's Episcopal Church, 2700 Eton Road, Cambria, CA 93428.

OBITUARIES

Alexander Mauro, Ph.D.

Dr. Alexander Mauro, a professor of biophysics at Rockefeller University, died Oct. 6 in New York City. He was 68 years old.

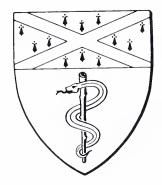
Dr. Mauro began his career at the School of Medicine in 1951 as an instructor and assistant professor of physiology. In collaboration with cardiac surgeon Dr. William W.L. Glenn, he developed the radio frequency cardiac pacemaker designed to aid patients with Stokes-Adams disease, a condition characterized by a slow, irregular pulse.

In 1959, he was named professor of biophysics at Rockefeller University and focused his research on cell membrane transport processes. In 1976, along with colleagues, Dr. Mauro identified one of the deadly proteins in black widow spider venom that causes muscle spasms in victims.

A native of New Haven, Dr. Mauro received undergraduate and doctorate degrees from Yale in 1942 and 1950, respectively.

He is survived by his wife, Jean Gilpatrick Mauro.

Memorial contributions may be made to the Muscular Dystrophy Association, 65 Cherry Street, Milford, CT 06460.





Dr. Arthur J. Viseltear

A. J. Viseltear, Ph.D.

Arthur J. Viseltear, associate professor of history of medicine and public health, died Jan. 7 of cancer. He was 51 years old.

A native of New York City, Dr. Viseltear received a B.A. degree in history from Tulane University and Ph.D. and M.P.H. degrees from the University of California, Los Angeles. In 1969, after teaching at UCLA for six years, he came to Yale, where he continued to teach and do research. He was past chairman of the history of life sciences study section of the National Institutes of Health, a member of the professions program panel of the National Endowment for the Humanities and of the American College of Preventive Medicine-Fogarty International Center Expert Panel on Consumer Health Education. Dr. Viseltear also was a member of the governing board of the Robert Wood Johnson Health Policy Fellowship of the National Academy of Sciences. He served on several editorial boards, including the Journal of Public Health Policy, Journal of the History of Medicine and Allied Sciences and The Nation's Health.

He had more than 35 papers published, several focusing on his special interest in the healthcare field in California. As a Robert Wood Johnson Health Policy Fellow in Washington, D.C., from 1974 through 1975, Dr. Viseltear helped write the bill that eventually became the National Consumer Health Information and Health Promotion Act of 1976. This law allowed for establishment of the National Center for Health Education.

Beginning in 1986, Dr. Viseltear served as chairman on the Committee on Exhibits in Cushing Rotunda for the Yale Medical Library. He also aided in the establishment of the Contemporary Medical and Health Policy Collection at Sterling Library.

He presented the commencement speeches to medical and epidemiology and public health graduating classes in 1981 and 1989, respectively, and twice received the Francis Gilman Blake Award given by the graduating medical school class for the most outstanding teacher in the medical arts.

In his hometown of Guilford, Conn., Dr. Viseltear was chairman of the Democratic Town Committee and a member of the Guilford Preservation Alliance and the board of directors of Temple Beth Tikvah.

He is survived by his wife, Elaine Fedors Viseltear; and two sons, Jason and Bennett Viseltear.

A memorial service was held in February at the Yale Historical Library. Contributions may be sent to Temple Beth Tikvah, Durham Road, Madison, CT 06443.

Robert C. Wallis, D.Sc.

Robert C. Wallis, professor of epidemiology, and medical entomology section chief at the School of Medicine, died on Sept. 6 at Yale-New Haven Hospital. He was 67 years old.

A member of the Yale faculty since 1963, Dr. Wallis founded the section of medical entomology and was one of the first entomologists to study Lyme disease and conduct arbovirus surveillance in Connecticut. He published numerous studies on viruses in man caused by insects, especially on the role of mosquitoes in transmitting viral diseases, such as eastern and western equine encephalitis.

For the past 25 years, Dr. Wallis was an advisor on mosquito control to several New Haven-area towns. He served on the editorial board of the Connecticut Entomological Society and from 1964 to 1975 was a member of the scientific advisory board of the Northeast Mosquito Control Association. In 1983, he was elected a fellow of the American College of Epidemiology.

Born in West Burlington, Iowa, Dr. Wallis graduated from Ohio University, received a doctorate from Johns Hopkins University in 1953 and served there as postdoctoral fellow in zoology, parasitology and medical entomology

before coming to Yale.

During World War II, he was an Army glider pilot and chief telephone and telegraph specialist, serving in the Philippines. He won a Bronze Star for bravery and a Purple Heart.

He is survived by two sons, Thomas F. Wallis III and Robert C. Wallis Jr.; and a granddaughter. He was predeceased by his wife, Grace E. McLaughlin Wallis.

Memorial gifts may be made to the Regional Visiting Nurse Association, 1152 Hartford Turnpike, North Haven, CT 06473.



Lauren D. Weinstein, '92

Lauren D. Weinstein, '92

Lauren D. Weinstein, a second-year student, died Oct. 4 of cancer at the age of 25.

A New Haven, Conn., native, Ms. Weinstein received a B.S. degree from Stanford University, where she was the first recipient of the Svessel Teaching Award, which has been renamed the Lauren Weinstein Award for Teaching. At Stanford, Lauren coordinated the Special Olympics and volunteered at the Children's Hospital. In 1988, she entered Yale, where in addition to her academic responsibilities, Lauren helped raise funds for charity and undertook research in exercise physiology.

Dr. Robert H. Gifford, associate dean of education and student affairs, remarked at a memorial service held on Oct. 6 at the School of Medicine: "With her remarkable background of scholarship and perseverance in the face of great physical adversity, Lauren met the demands of medical school and continued to pursue

activities she enjoyed and excelled at, which included swimming and playing piano....Lauren had an exceptionally winning personality and demonstrated genuine caring, warmth and selflessness. She will continue to inspire us to be compassionate physicians and caring human beings."

Beside her parents, Lauren is survived by her sister Elizabeth.

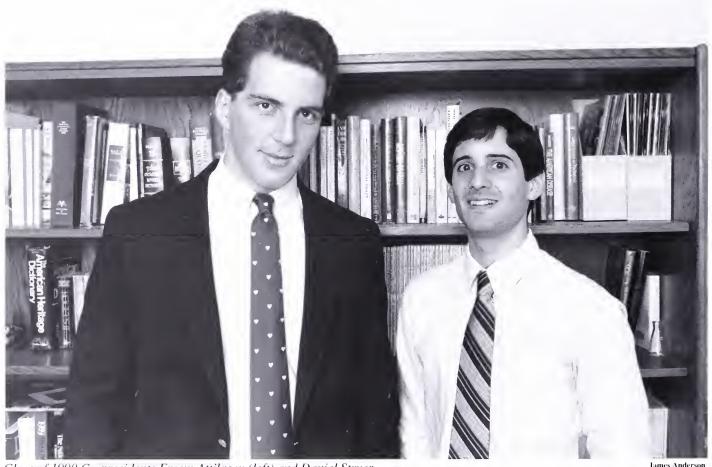
The School of Medicine Class of 1992 has established a prize to be given to a second-year student and a memorial fund in Lauren's name. Donations may be sent to Yale University-Lauren Weinstein Memorial Fund, Office of Student Affairs, Yale School of Medicine, 367 Cedar St., New Haven, CT 06520.

IN MEMORIAM

Myron A. Sallick April 16, 1989	'24 M.D.
Mitchell B. Stock June 13, 1989	'29 M.P.H.
Edward B. Bosworth February 7, 1989	'33 M.P.H.
John B. Ross June 25, 1989	'43 HS
Paul E. Molumphy August 1, 1989	'44 M.D.
James T. Smith November 30, 1988	'49 HS
Elizabeth U. Throm July 23, 1989	`51 M.P.H.
Laurence N. Unger August 5, 1989	'60 HS
Ronald G. Scarpinato November 22, 1988	'79 HS

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ALUMNI REPORT



Class of 1990 Co-presidents Ercem Attilasoy (left) and Daniel Stryer.

James Anderson

Director's Message

The dust of alumni weekend 1989 had hardly settled before pencils were sharpened to outline the reunion for 1990 on June 8 and 9. Dedication of the new Harvey Cushing/John Hay Whitney Medical Library will take place on Thursday, June 7, so that returning alumni/ae may share in these festivities. Our reunion theme for 1990: the challenge to American medicine and its medical schools in addressing social issues, such as access to care for our large uninsured population.

Dr. Donald W. Seldin, '43, our keynote speaker in 1989, discussed this issue at length and described public expectations of medical schools as unrealistic. He did not challenge the urgency of national health problems, but felt that responsibility for solving them should be shared by other

institutions, programmed in postgraduate training, and funded as part of their planning.

Our keynote speaker on June 8, 1990, will again be a distinguished alumnus, Dr. Stephen Joseph, '63, former health commissioner of the city of New York. The breadth of his experience should allow him to provide an authoritative view of the challenges that public health must address in the 21st century.

The 75th anniversary of the YSM department of public health is being observed in 1990. The history of our school of public health illustrates many challenges successfully met. A panel discussion on Saturday morning, expanding on the theme of future health care delivery, will be joined by Dr. Joseph, Dr. William L. Kissick, of the University of Pennsylvania, will moderate the discussions of Dr. Joseph

and two other alumni/ae. Faculty lectures in psychiatry and clinical cardiology will focus on illness prevention and health promotion.

Student activities continue to occupy the attention of the alumni office, with fourth-year class officers planning their senior-year activities and determining how the alumni association might help. They plan to add to their current six volunteer members in anticipation of future activities. Ercem Atillasov and Daniel Stryer, co-presidents, and Thomas Christopher, treasurer, are pondering year-end activities which will help shape their emerging identity as alumni.

An interesting modern complication of medical education is facing this class: Only 64 of the 101 students who matriculated in 1986, and who thus identify with the Class of 1990, will graduate in June, due to advanced

degree and research career demands. This trend foreshadows many changes in the landscape of alumni relations. Nevertheless, the Class of 1990 is the first which has been organized since they were freshmen with appointed officers and agents; they are very much an ideally functioning alumni group.

We hope this will allow improved future communication among these classmates and that the bonding and networking inherent in alumni organization will be better realized than in the past.

To nurture friendship between the generations, a student tea in the Beaumont Room on Tuesday, Dec. 5, was hosted by AYAM. Several alumni from the greater Connecticut area attended.

As part of the enormous physical growth and redevelopment of our medical campus, 1990 promises the relocation and expansion of the office of alumni affairs, a change desired by many past members of our executive committee. Details will be forthcoming.

It is with great regret that the director of alumni affairs must for reasons of health relinquish the responsibility for the alumni office administration after the reunion of 1990. A search is in progress to find a Yale medical alumnus, if possible, as his replacement. I accepted the part-time position four years ago, with an agenda articulated in a paper co-authored with past-president Dr. William Kissick. It presented a blueprint for a restructured Association of Yale Alumni in Medicine that would offer greater support to our school, its dean, students, and to ourselves as alumni/ae.

Greater communication with our graduates has been achieved in the interval, through YALE MEDICINE and Yale Alumni Magazine columns, as well as in expanded annual reunions. Better communication also has begun with our students. Furthermore, hundreds of unacknowledged housestaff alumni have been traced.

Of most satisfaction has been the emergence of a loyal "kitchen cabinet" of volunteer, semi-retired graduates with varied interests, who have provided assistance and counsel to busy association officers, our dean, staff and students. I hope to volunteer with this group, and spend most of my energy in helping develop student financial assistance plans, which have provided my greatest pleasure.

Finally, our bylaws are being updated. A new medical alumni/ae directory is in process. Our school in

these complex times has never needed more the support of its friends and family. It has never been more of a privilege and challenge for me to be so counted.

Dr. Nicholas P.R. Spinelli, '44 Director of Alumni Affairs

Annual Meeting of Alumni Ophthalmology Residents

The annual meeting of the Yale Alumni Residents in Ophthalmology convened at the Jane Ellen Hope Building on Saturday morning, Sept. 16, 1989. Dr. Samuel Packer, professor of ophthalmology, Cornell Medical College, spoke on "Management of Malignant Melanoma": Dr. Daniel Finkelstein. associate professor of ophthalmology, Wilmer Institute, Johns Hopkins University, discussed "Vein Occlusion, Management and Research"; and Dr. Douglas Gaasterland, professor of ophthalmology, Georgetown University, spoke on "Clinical Trials in Glaucoma".

Dr. Joseph Miller was awarded \$500 for the second annual Research Award for his work on "An Optimal Method for Measuring Nerve Fiber Layer Contour". His name will be inscribed on a plaque at the Yale Eye Center.

Following the scientific session, the group took a chartered bus to the Yale Bowl where everyone, in spite of the inclement weather, enjoyed a picnic lunch while watching the Yale-Brown football game.

The evening's festivities at the New Haven Lawn Club featured a social hour and dinner. Dr. Marvin L. Sears, professor and chairman of ophthalmology/visual science was surprised with a birthday cake and serenade, following which he delivered a humorous talk on Yale Eye Center activities.

Those who attended the meeting included: Dr. and Mrs. I. Willard Abrahams, Dr. and Mrs. Dean Arkfeld, Mrs. Rosalie Bell, R.N., Dr. and Mrs. Joseph Caprioli, Dr. and Mrs. Michael Cooper, Dr. and Mrs. Dean Cummins, Dr. Elizabeth Daher, Dr. Cindy DeAngelis, Dr. Patricia (Jaros) Ecker, Dr. Daniel Finkelstein, Dr. Susan Forster, Dr. Douglas and Mr. David Gaasterland, Dr. Roger Gray, Dr. John Hatch, Dr. Mark Heinemann, Dr. Stanley Hersh, Dr. and Mrs. Tehiry

Hufnagel, Dr. Berry Klein, Dr. Ali Khodadoust, Dr. Robert Lesser, Dr. Peggy Liao, Dr. Harry Mark, Dr. Eydie Miller, Dr. and Mrs. Naoki Mori, Dr. and Mrs. Samuel Packer, Dr. Anthony Petrelli, Dr. and Mrs. Marvin Sears, Dr. Joel Silverman, Dr. and Mrs. David Silverstone, Dr. and Mrs. Scott Soloway, Dr. Kathleen Stoessel, Dr. Naota Takahashi, Dr. John Thompson, Dr. Robert Wiznea, Dr. and Mrs. Andrew Wong, Dr. and Mrs. Eichi Yamada, Dr. and Mrs. Takeshi Yoshitomi.

Andrew Wong, HS '51

Association of Yale Alumni in Medicine

Thomas P. Kugelman, M.D. '60, *President*

Muriel D. Wolf, M.D. '59, Vice President

Gilbert F. Hogan, M.D. '57, Secretary

Dwight F. Miller, M.D. '56, Past President

Executive Committee

Sanfurd G. Bluestein, M.D. '46 Sharon L. Bonney, M.D. '76 Martin E. Gordon, M.D. '46 Attilio V. Granata, M.D. '77, Jay H. Hoofnagle, M.D. '70 Nicholas M. Passarelli, M.D. '59 Dorothea R. Peck, M.D. '43 Jerrold M. Post, M.D. '60 Romeo A. Vidone, M.D. '57 Warren D. Widmann, M.D. '61

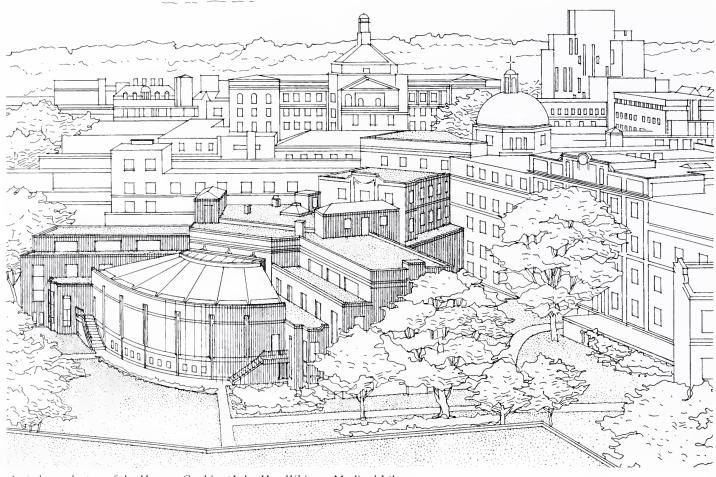
Representatives to the Association of Yale Alumni

Fredric K. Cantor, M.D. '62 Lycurgus M. Davey, M.D. '43 James Q. Haralambie, M.D. '35 Marie-Louise Johnson, M.D. '56 Kristaps J. Keggi, M.D. '59 Gioacchino S. Parrella, M.D. '41

R. Leonard Kemler, M.D. '43 *Chairman Medical School Alumni Fund*

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DEVELOPMENT REPORT



Artist's rendering of the Harvey Cushing/John Hay Whitney Medical Library.

Library Dedication Set for June 1990

On June 7, 1990, the renovated medical library—to be renamed the Harvey Cushing/John Hay Whitney Medical Library—will be dedicated.

At the ceremony, a plaque will be mounted to recognize the nearly 200 medical school graduates who donated \$3,000 or more to the Campaign for the Yale School of Medicine.

This new facility has generated a great deal of interest among medical school graduates who wish to recognize their affiliation with the school or desire to honor loved ones in a special way. Several units within the library have already been named as a result of significant gifts. These include the John B. Ogilvie, M.D., Director's Office; the Mohandas Kini, M.D., Conference

Room; and a study room contributed by Miles Laboratories, Inc. Anyone wishing to review naming opportunities can contact Carol Randall Perricone at (203) 785-4420.

YPI Makes Return to Medical Center Campus

In December, a new \$13 million facility went into service for the Yale Psychiatric Institute (YPI), part of the School of Medicine's department of psychiatry. Located on the block bounded by Congress Avenue and Liberty Street and Washington Avenue and Cedar Street, the 76,000-square foot, 66-bed facility treats adolescent and young adult inpatients. Ten years ago, YPI moved its inpatient facilities out of the medical center to temporary quarters at Albertus Magnus College.

The YPI campus was conceived as a village by architects Frank O. Gehry of Santa Monica, Calif., and Allan Dehar of New Haven, who worked in collaboration. To enhance the sense of community, and to reflect Yale tradition, YPI's three interconnected buildings were built around a courtyard.

The architects worked closely with YPI administrators and staff, and with Hill neighborhood leaders. YPI patients, too, had their say. They helped choose interior colors and named the campus's three interconnected buildings Liberty Village, Washington Square and Congress Place. Dr. Ralph E. Hoffman, associate professor of psychiatry and YPI's medical director, explains that the average stay for patients ranges from 18 weeks to a year. As their condition improves, patients are given increasing freedom to access different parts of the hospital complex.

"Two buildings are used for treatment," points out Dr. Hoffman. "Young adults live on the second floor of Washington Square. Long-term adolescent care is offered here as well, on the third floor, while adolescents who require short-term treatment stay on the second floor of Liberty Village. Liberty Village's third floor features a gymnasium and weight-lifting room."

Congress Place, the third of the interconnected buildings, houses some faculty and administrative offices, plus commercial space with an entrance on Congress Avenue. The upper two floors are set aside for molecular biology and genetic laboratories that are still to be constructed.

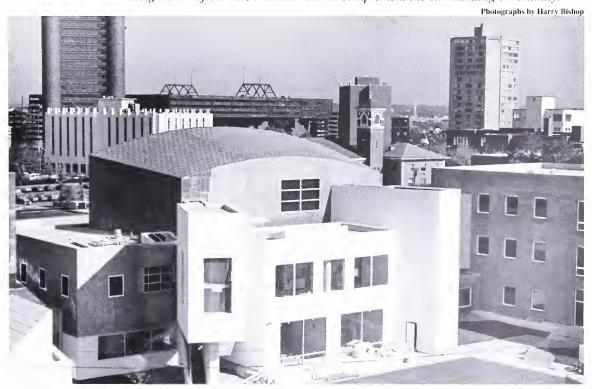
A smaller, free-standing building rounds out the YPI campus. This houses offices for the YPI rehabilitation program through which patients learn retail, office and other vocational skills.

Concludes Dr. Benjamin S. Bunney, professor and chairman of the department of psychiatry and professor of pharmacology, "Our new YPI structure offers an exciting environment that will enhance our patients' recovery. In these facilities, physicians and scientists can work collaboratively and creatively to address some of the challenging clinical and research questions that face the field of mental health today and to treat severely disturbed adolescent and young adult patients."



Dean Leon E. Rosenberg joins Bonaventure Console, president of the Hill Development Corp. (left) and New Haven Alderman Tomas Reyes to celebrate the opening of new YPI facilities on Nov. 16, 1989.

Shown against the backdrop of New Haven's skyline, Yale Psychiatric Institute was designed to reflect Yale tradition and to complement the surrounding community.



Yale Medicine Spring 1990 47

Highlights: Medical Alumni/ae Weekend

Friday, June 8

8:00 a.m.	Registration
8:00	Yale University Hospital Administration Alumni Association Spring Workshop "National Health Care: Has The Time Arrived?" (participants to be announced)
9:00-4:30	Yale Alumni in Ophthalmology Annual Meeting (participants to be announced)
1:00 p.m.	Class reunion seminars
	 Class of 1965 (25th) - Moderators: Drs. Margretta and John Seashore Class of 1945 (45th) - Moderator: Dr. Richard Breck
4:00	Special address: "Public Health and Public Policy in the Age of AIDS", Dr. Steven C. Joseph, '63, former Commissioner of Health, City of New York
5:00	Dean's reception
7:00	Reunion buffet

Saturday, June 9

9:15 a.m.	Faculty seminars: Departments of Cardiology, Psychiatry, Office for Women in Medicine
10:30	Reunion symposium: "The Ethos of Public Health: A Challenge for Medicine in the 21st Century" Moderator: Dr. William L. Kissick, '57 M.P.H. '59, Dr. P.H. '61, University of Pennsylvania School of Medicine; Participants: Susan S. Addiss, M.P.H. '69, M.U.S., Director of Health, Quinnipiack Valley Health District, Hamden, Conn., President, Association of Yale Alumni/ae in Public Health; Drs. Stephen C. Joseph, '63; Lawrence G. Crowley, '44, Stanford University Medical Center
11:45	Annual meeting, AYA in Medicine Distinguished Alumni Service Award Presentations
1:00 p.m.	Sherry and buffet luncheon
2:45	Tours of medical center, University and New Haven
3:15	Yale Medical Reunion Dialogue and Tea: "Humanism in an Era of Technology: Is it Still Alpha or Omega?" Dr. Howard Spiro, Professor of Medicine and Director, Program for Humanities in Medicine; Dr. Shirley McCarthy, '79, Associate Professor, Director, MRI Diagnostic Radiology
6:00	Class Reunion Dinners "Friends of the 50th Dinner" (honoring the Classes of 1935, 1940 and 1985)

All medical graduates and former house staff are welcome to attend alumni weekend. Reunion festivities will be held for classes ending in years "0" and "5". For more information, call the School of Medicine's Office of Alumni Affairs, (203) 785-4674.

NOTICE

Alumni/ae in cities near American medical schools who would like to provide overnight bed/board accommodations to Yale medical students touring the country for residency/training positions, should return the attached card. An application with detailed information will be forwarded.

YALE MEDICINE P.O. Box 3333 333 Cedar Street New Haven, CT 06510-8011

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PAID NEW HAVEN, CT PERMIT NO. 470 Alumni Bulletin of the School of Medicine

Summer 1990

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Psyche, Soma and Society: Psychiatry at Yale

"My Perspective on Child Abuse" by Dr. Elizabeth Morgan

YALE MEDICINE

Alumni Bulletin of the School of Medicine

Summer 1990; Volume 24, Number 3

3 Behind Medicine's Miracles

Medical advances make headlines; the years of laboratory work preceding them do not. YALE MEDICINE profiles the key role animal research plays in developing cancer treatments.

5 Yale Medical Students March to War!

Dr. Fred Collier, '46, takes a whimsical look at how the Army fared better against the Axis powers than in its efforts to whip his class into the envy of Glenn Miller's Air Force Cadets.



10



Minorities at YSM: Are We Competitive?

In his 1990 Martin Luther King Day address to the medical school, Dr. Forrester Lee, '79, assesses his alma mater's success in attracting minority faculty and students.

15 Psyche, Soma and Society: Psychiatry at Yale

Yale's psychiatry department treats 12,000 patients a year and is a world leader in many areas of research. YALE MEDICINE presents an overview of this wide-ranging department.



My Perspective on Child Abuse

Dr. Elizabeth Morgan, '71, argues that doctors should be better trained to recognize the signs and symptoms of child abuse, a pervasive—and growing—problem.

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43 Development Report

The cover illustration is based on a pencil drawing done by a young man in art therapy at Yale-New Haven Hospital. Art therapy plays a major role in the assessment and treatment services provided by Yale psychiatry.

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Dr. Michael Kashgarian, professor of pathology, is editor of YALE MEDICINE. The tri-annual magazine is produced by the Office of Public Information: Helaine Patterson, director; Gregory R. Hutb, publications editor; Diane Loupe, staff writer: L. Rosalind D'Eugenio, staff assistant; and Claire Bessinger, senior administrative assistant. Production: Hoblitzelle Graphics; printing: E. H. Roberts Co.

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Alumni: Please list information about your professional and personal activities that may interest your Yale colleagues. Include pertinent dates. This will be published in the class columns in Yale Alumni Magazine (personal news) or YALE MEDICINE (professional news).

Check if new address	Daytime telephone: area code () Yale degree(s) House Staff/Fellow	NameAddress
Specialty	Year(s)Year(s)	

LETTERS TO THE EDITOR

Dr. Elizabeth Morgan

To the editor:

I write in reference to Dr. John W. Foster Jr.'s letter about Dr. Elizabeth Morgan which was published in the Spring 1990 edition of YALE MEDICINE. I cannot agree with Dr. Foster regarding Elizabeth Morgan as a "hot topic of news". I know the developments about her well-publicized child custody case by heart ad nauseam from network news, Cross-Fire etc.

I would rather hear from Dr. Morgan's classmates about Elizabeth, the person, and I agree with you that YALE MEDICINE's pages should not be yellowed by stories of our divorces, lawsuits, etc.

Dr. R. W. Breck, '45 Wallingford, Conn.

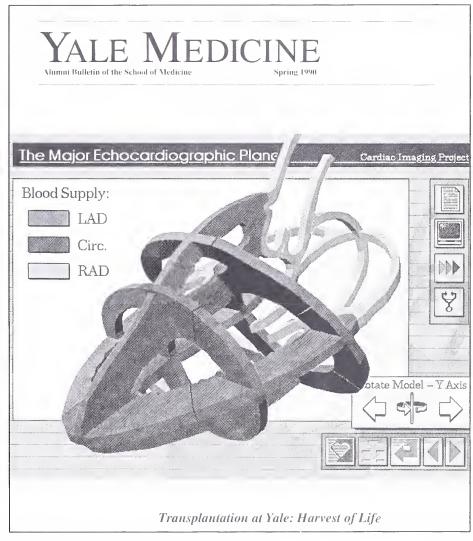
Editor's reply:

YALE MEDICINE's policy is to cover news of a professional nature only regarding the School of Medicine's alumni, faculty, staff and students. However, the controversial child custody case involving Dr. Elizabeth Morgan, '71, and her former husband, Dr. Eric Foretich, has focused public attention on the important issue of cluld abuse, particularly sexual abuse, a widespread problem which for too long has remained in the shadows. As a School of Medicine alumna, Dr. Morgan has submitted an article to YALE MEDICINE giving her point of view regarding this issue. We are liappy to feature it on page 22.

Town and Country Kudos

To the editor:

On page 36 of the Spring 1990 edition of YALE MEDICNE four members of the Yale School of Medicine were named outstanding specialists in the U.S. in the November issue of *Town and Country* magazine. The statement says that they are the only Connecticut physicians to be honored by the magazine. This is incorrect. Also honored were Yale faculty mem-



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bers Dr. Richard Edelson, Dr. Lawrence S. Cohen, Dr. Thomas Duffy and myself. There may also have been others as I don't have a copy of the magazine to check this.

Since the list in *Town and Country* represents physicians to whom other physicians refer patients on a national basis, Yale's reputation might be enhanced by publishing the full list.

Dr. James L. Boyer, HS '67-'69 New Hayen, Conn.

To the editor:

In the Spring 1990 issue of YALE MEDICINE page 36, a brief announcement lists four faculty members

named as outstanding medical specialists in *Town and Country*. The announcement fails to include four or five of us in the department of surgery and an equal number from the department of medicine. I thought your staff would be interested to know this.

Dr. Clarence T. Sasakí, '66, HS '70-'73 New Haven, Conn.

Editor's reply:

Thank you for calling attention to these omissions. Please see Faculty News, "Faculty Named Leading Specialists," page 35.

YALE MEDICINE Summer 1990

Author's Inquiry: YSM Women

To the editor:

I am writing to the readers of YALE MEDICINE for help with a long-term project on the history of women physicians at the School of Medicine. Most of my work has centered on the admission of women beginning in 1916 and especially on the main protagonist of this event, Louise Farnam. This is partly because her family's letters are available in Manuscripts and Archives at the Sterling Memorial Library and partly because the story is so intriguing. The final decision to admit women came through the encouragement and financial help of Louise's father, Henry W. Farnam, a professor of economics.

On March 31, 1916, he wrote a letter to University President Arthur Twining Hadley stating that he had heard informally that women would be admitted to the School of Medicine if funds could be raised for separate lavatories. In case they were having trouble raising this sum of money, the professor assured them that he would provide the necessary funds. And so Louise Farnam and two other women were admitted to the Class of 1920 because Henry Farnam agreed to pay for women's bathrooms.

Louise Farnam led a brilliant career as a student, graduating first in her class and winning the Campbell Gold Medal for the highest scholastic achievement in her class. She went on to work as a physician/missionary at the Yale-sponsored medical school in Changsha, China, for many years. Her two children live in England, and I have had the pleasure of meeting and corresponding with her daughter, Rosemary Norton.

This work has blossomed into one paper (Yale Journal of Biology and Medicine 53:191, 1980) and two exhibits at the Medical Library (1978 and 1986). I am eager to expand this research to include other women who attended and graduated from the School of Medicine. I am particularly interested in the '20s and '30s, as well as the World War II years, during which the number of women at the Yale School of Medicine rose dramatically. I would be interested in hearing from anyone who attended Yale during these times and who could tell me about their experience as women or about their classmates' experience. Humorous stories and fantastic class legends would be greatly appreciated. 1 am also interested in any diplomas, certificates, photographs or medical memorabilia about the women who lived during these times.

Susan Baserga, M.D., Ph.D. '88 Yale University School of Medicine SHM C-38 P.O. Box 3333 New Haven, CT 06511



Alice Shepard Cary, '45, strikes a pose with classmate Fred Blodgett during their medical school days. At their 45th-year reunion this year, Dr. Cary related her experiences about a lifetime of family practice in Japan.

House Officer Subscriptions

To the editor:

I have had a lot of feedback regarding the piece in the Fall/Winter 1989-1990 edition of YALE MEDICINE on my memories of Yale medical school days. Thanks again for publishing it.

I have a suggestion. I gather there is an attempt to bring the house officers into the "aura of Yale." I think it would be great to include all house officers in the distribution of this publication.

I tried to get some copies for the pediatric house officers, but by the time I contacted Alumni Affairs Director Dr. Nick Spinelli, there were none left.

Dr. Morris A. Wessel, '43 New Haven, Conn.

Editor's reply:

Until 1987, we distributed YALE MEDICINE to alumni, faculty and students of the School of Medicine, as well as to selected friends of the medical school. Then three years ago, as the YSM Office of Alumni Affairs began to locate former Yale-New Haven Hospital house staff officers, we added them to our mailing list. This has increased our circulation from 11,000 to more than 13,000 — a figure which continues to grow adding to publication and mailing costs. In the context of these rising costs and YALE MEDICINE's limited budget, we will discuss with the YSM administration and budget office whether it will be possible to provide the magazine to the hospital's 400 house staff officers during the 1991 fiscal year.

YM Spring 1990 Corrections

In the Spring 1990 edition of YALE MEDICINE, in the photo caption on page 18, the first name of Dr. Graeme Hammond, professor of surgery, was listed incorrectly. In Faculty News on page 37, it was stated that the University Alumni Fund chairman's award citation for Dr. Nicholas P.R. Spinelli, '44, the medical school's director of alumni affairs, recognized his five years of service to the fund; in fact, his continuing service spans five decades.

BEHIND MEDICINE'S MIRACLES

by Gregory R. Huth, M.P.H. '84

It was in 1986, just as the leaves began their fiery display outside her classroom window in Plainfield, Connecticut. Kindergarten teacher Claire Dubuc, a sister in the order Daughters of the Holy Spirit, noticed the first warning signs: She felt run down and could not get rid of a painful, stiff neck no matter what home remedy she tried. Her doctor confirmed her worst fears—the mastectomy she had undergone more than two years before had not been in time to stop the spread of a malignant tumor—cancer had invaded her spine.

In early 1987, she arrived at Yale-New Haven Hospital for radiation therapy and to be fitted for a brace to support her unstable vertebrae. And within weeks, Sister Claire began a regimen of traditional chemotherapy at the Yale Comprehensive Cancer Center (YCCC).

Although the powerful drugs did help, they soon began to affect her heart. Her physician at Yale, Associate Professor William N. Hait, M.D., Ph.D., YCCC's director of clinical sciences, recommended that Sister Claire enter a clinical trial involving an experimental drug called leukovorin. Years of laboratory and clinical research at the cancer center under the direction of Drs. Joseph Bertino and Henry Durivage indicated leukovorin might enhance traditional drug therapy while reducing its toxicity.

Sure enough, Sister Claire tolerated the new treatment far better, and after three months, her tumor started to shrink. Her bones began to heal. By the time treatments ended in December 1989, Sister Claire was in near-total remission, out of the brace, and able to go about the business of daily life unassisted.

Sister Claire says her faith in God helped in her healing and adds, "I received lots of love and support from my family, the other sisters, the parish and from the staff and patients in the clinic." While highlighting the importance of such support, her recovery also illustrates the advances society has come to demand from biomedical research. Since World War II, progress in treating—in some cases even eradicating—many of the most feared diseases has allowed the paradoxical term "medical miracle" to make its way into everyday conversation.

While dramatic medical advances often command headlines, however, the painstaking laboratory work leading up to them does not. Comments Sara Rockwell, Ph.D., a YCCC basic scientist and professor of therapeutic radiology, "To understand the process of developing an anti-cancer drug, you have to look back years before such a therapeutic agent is first used in human beings." To do so is to discover a complex system of biomedical research comprising a number of steps, each interrelated and dependent on the other.

Dr. Rockwell explains that the first such step along the long, difficult path of drug development begins with winning the approval of one's colleagues and funding sources. They must be convinced that a researcher's theory is sound enough



Photograph by Michael Marsland

Sister Claire Dubuc with her physician, Dr. William N. Hait.

to justify the enormous amount of time and money that it will take to test it.

Once this hurdle has been cleared, an experimental drug must be studied in several models that simulate how it will interact with both cancerous tissues and normal tissues of the human body. If the drug shows promise in these models, it can be tested, at last, in people.

Technology Advances

Computer models can be a time- and money-saving step to begin this process. Explains cancer center Director Alan C. Sartorelli, Ph.D., the Alfred Gilman Professor of Pharmacology, "Computer modeling is helpful for those few drugs for which we have significant background knowledge. If we know their distribution in cancers versus normal tissues; if we know how long they stay active in the blood; if we know the compartments in the body that the drugs distribute in, then we can use the computer to model the drug's effects with relative accuracy."

Such data are derived, Dr. Sartorelli points out, from years of testing in both animals and humans. Computer models, even when available, produce data that are far from comprehensive, however, and so the drugs they suggest also must be tested in other models before they can be introduced into human subjects. The next level of testing takes place in the laboratory and uses cells cultured *in vitro*, in a test tube.

Gregory R. Huth is publications editor at the School of Medicine's office of public information.

Dr. Rockwell has been a pioneer in developing new tissue culture techniques since her graduate training at Stanford University in the 1960s. Her laboratory, she explains, uses malignant cells from a single mouse mammary tumor that has been frozen in liquid nitrogen. Cloning these cells allows researchers to use identical tumor cells for many experiments; the same technique also can reproduce cells derived from healthy tissues.

By studying how the cultured cells react to anti-cancer drugs, scientists can make an educated guess as to how intact tissues might respond. In one way, tissue culture experiments are a statistician's dream: Because each batch of cells is exactly the same, researchers know that any changes are brought about by the drug and are not the result of differences among the cells.

Tissue culture, however, is far from the last word in drug testing, as Dr. Sartorelli explains. "There are some cells that you cannot grow in culture. For instance, once you grow liver cells in culture, you get a totally different response than you would from a liver that is intact."

Moreover, results from cultured cell experiments cannot predict fully the way intact tissues might react. Tissues and tumors in a living organism differ from cultured cells in that the former are nourished by a blood supply and contain different levels of nutrients and oxygen—all key factors in cancer treatment. So, cancer researchers must turn next to animal models to see if drugs that show promise in the test tube will perform as well in a mammal.

The subjects of choice? Mice and rats. The scientific principal behind the use of these animals is similar to that applied in cell culture experiments: Over the years, these rodents have been inbred to produce strains of animals that are genetically the same. Like identical twins, these mice will accept grafts of tissues, including tumors, from one another. And so researchers can compare different treatments among identical mice bearing identical tumors.

Though the laboratory animal phase of drug development might seem to claim a remarkable amount of time—usually several years—rodents and their tumors are chosen to minimize the number of experiments, and thus the time required to produce valid data. Hence, all such research is undertaken as part of the quest to cut down on the time and expense involved in moving promising drugs from the laboratory to the bedside.

Over the years, YCCC scientists have been able to gain higher quality data from animal studies even as the researchers have reduced the number of animal subjects needed and minimized the pain they must undergo. For example, advances in cell culture technology by scientists such as Dr. Rockwell have allowed them to analyze the response of tumors earlier in their development than ever before.

In Dr. Rockwell's words: "Our research methods are important both from the point of view of the humane treatment of animals and that of good science." She explains that in her lab, cancer cells cultured from mouse mammary tumors are introduced into the flanks of inbred mice, where tumors are allowed to grow for about two weeks. After undergoing drug therapy, the mice are euthanized painlessly and researchers measure the effects of the treatment by putting the tumor cells into culture and observing their growth.

Tumors are grown on the flanks so as to minimize discomfort and not disturb the rodents' normal activities. The growths are allowed to develop into a 5 millimeter nodule, about 1 percent of a mouse's weight. "At that size, the

animals don't seem to notice that they're there," Dr. Rockwell points out.

She adds that other signs would indicate the rodents do not suffer from the procedure: "The animals don't lose weight. They don't become anemic. We don't let the tumors get so big that they metastasize."

Testing in Humans

While rodent models in many ways do suggest how the human body will react to a powerful anti-cancer drug, such experiments do not predict completely how a medication will affect a person or what the optimal drug dose will be in a human being. Thus, before a drug can be approved for general use in patients, it finally must be tested in volunteers.

One might wonder, given the untold human suffering caused by such diseases as cancer, if it would not be preferable to eliminate the time-consuming step of animal studies and move directly to clinical trials. Preferable surely, but not possible. When asked what would happen if laboratory animals were removed from the research process, the normally subdued Dr. Sartorelli replies passionately: "We're not going to develop any more drugs to treat cancer."

Computer modeling, he points out, is still in its infancy, and cannot substitute for animal studies. Today's scientists simply do not possess the kind of data about physiology and biochemistry that computers need to create models that can yield drugs which will not require extensive testing. And for the foreseeable future, tissue culture, while continuing to grow in sophistication, will remain an incomplete predictor of how the intact tissues of human beings will react to drugs.

As for substituting human volunteers for animal subjects, Dr. Sartorelli points to how the scientific process would simply break down. He emphasizes that developing new anticancer drugs depends on producing "identical tumors in mice and rats that are genetically the same. That gives you a tremendous advantage from a statistical point of view. It means you don't have to use a lot of animal subjects to get meaningful data."

By contrast, he points out, "there is so much variation between human subjects. The sizes of their tumors are different. Each person metabolizes drugs in a different way. That means we would have to use many, many more people to learn about the effectiveness of an experimental drug than we now use rodents. We would need such huge numbers that we wouldn't have enough patients to do clinical trials. So drug development would come to an absolute standstill."

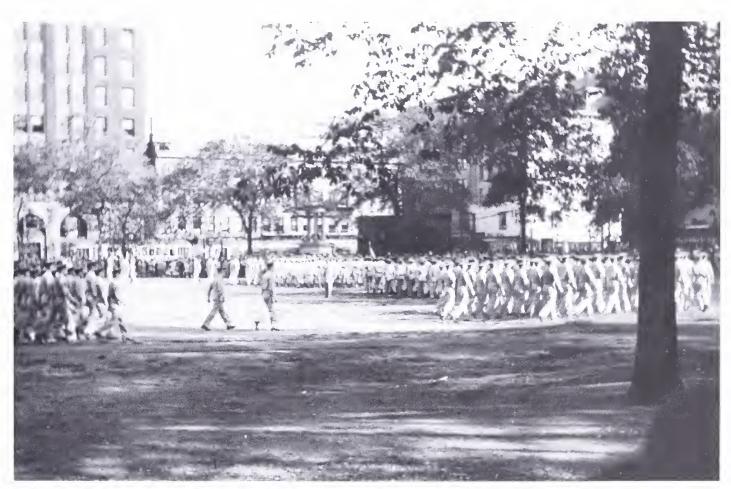
What about the dream of speeding the pace of drug development by improving computer and tissue culture models? Every day, researchers at Yale and throughout the world are making this dream a reality. Does this mean that these models will progress so rapidly that computers and tissue culture will replace animal models? Unfortunately, not in the foreseeable future.

Not that such a development would run counter to the interests of the biomedical research community. For, moving drugs along as quickly as possible from theory to their use as approved therapeutic agents is what builds careers, whether for the humblest academic researcher or the highest-powered pharmaceutical industry executive.

Indeed, asked what would happen if a researcher could model a drug on a computer, test it in tissue culture and then apply it as a safe, therapeutic agent among patients, Dr. Sartorelli replies: "Simple. The only thing left to do would be to walk down the aisle in Stockholm and pick up your Nobel Prize."

YM

YALE MEDICAL STUDENTS MARCH TO WAR!



A typical weekend scene at the New Haven Green during World War II.

Wartime photographs by Dr. Richard W. Breck.

by Dr. Fred Collier, '46

In June of 1943, approximately 120 Yale medical students gathered at 9 a.m. on the steps of 333 Cedar St., where a somber Assistant Dean George H. Smith, Ph.D., asked us to form four rows. He introduced William Kennard, 1st Lieutenant, F.A., A.U.S., who then took charge. Lt. Kennard addressed us in the warm and friendly terms to which we would be exposed in greater concentration over the next three days while being inducted into the service in Fort Devens, Mass.

"Attention!" he shouted.

Our response was auspicious. Not all of the students stopped chatting. Some crossed their arms in front of them,

YALE MEDICINE learned at press time that Dr. Fred Collier had died suddenly on April 19, 1990. His obituary will appear in the Fall/Winter 1990 edition of the magazine.

and others inclined their heads slightly as they put their hands in the pockets of their tan poplin or seersucker suits.

All-in-all, it was a rather unmilitary group that the lieutenant was addressing. Moreover, these were not 18-year-old draftees; each man had at least a baccalaureate degree, 15 had masters' degrees and seven had Ph.D.s. Some had graduated years before and had been working in laboratories of physiology, pharmacology, biochemistry and anatomy.

I could detect a sense of wistfulness in the lieutenant's voice as he inquired if anyone present had had ROTC training. Lt. Kennard, Yale '41, had won his commission in the ROTC and was looking for a man he could relate to. Frank Countryman, Yale '42S, had not yet learned that in the Army one does not volunteer, so he did.

Thus encouraged, the lieutenant gamely announced: "Last week, a lot of you men knew me as 'Billy,' or 'Bill.' From today, however, it is Lt. Kennard." He then instructed Frank to march the men to the New Haven railroad station, following the Army flatbed truck that would lead the way.

YALE MEDICINE Summer 1990

"Forward-march!"

March, indeed. "Stroll" was more like it. Only those of us with some ROTC training—probably fewer than half a dozen men—understood what "rank and file" meant. Of that group, not all could keep step.

As we meandered down Congress Avenue toward the New Haven railroad station, I realized that we were proceeding in the fashion in which Roman legions marched as they crossed over suspension bridges to avoid the rhythmic beat that would tear the bridges apart. At one intersection we proceeded across the path of the smartly dressed, precision-oriented platoon of Capt. Glenn Miller's Air Force Cadets, who were stationed in New Haven. I could not help but think as I watched the mounting redness of Bill Kennard's handsome face, that though we would have been a centurion's delight, we were the nemesis of our lieutenant.

In The Army Now

That evening, we were greeted at the train station in Ayer, Mass., by a pudgy, plethoric sergeant named George Manley, from Andalusia, Alabama. Almost immediately, the medical students of Company C ASTP SCSU 1121 dubbed ourselves "Manley's Commandos." Sgt. Manley invited us to join him in a march to Fort Devens, using a string of expletives which would have made Morton Downey Jr. sound like a Bible Belt bishop.

At 4:30 the next morning, we awakened to a blaring bugle piped through a loud speaker in our barracks, followed by the not-so-dulcet tones of Sgt. Manley. He told us to clean up, put on our shoes, socks and skivvies and fall-in in the company yard. Very few of us were familiar with Army jargon and, as a result, rank confusion ensued. Nevertheless, at five o'clock we managed to descend on the clothing dispensary, where we were to be outfitted from underwear to great coat.

On this first morning we learned by experience the Army motto: "Hurry up and wait." By the time we got through the line to try on greatcoats, the sun was beating down on the corrugated, galvanized roof, making the immobile air stiffen. The oppressive heat—and the remoteness of the winter—conspired to make us spend as little time as possible trying our greatcoats on. We did, however, pause to make sure our socks fit.

Now that we were dressed for a blizzard, we were marched to the infirmary, where we stripped again and began making our way through two lines of Army Medical Corps men. In a strange way, it reminded me of the daisy chain at Vassar dances from my undergraduate days, where Yale men were paraded through a long row of beautiful Vassar hostesses. Only, each of these dozen "debutantes" was armed with a needle and syringe, and delivered with glee bilateral injections to the deltoids. They inoculated us against all known, and probably some as yet unheard of infectious diseases.

We then advanced to the medical queue for examination by a battery of doctors, many of whom just a few months before had shared our student status. The physical examinations, done assembly-line fashion, were probably not much more astute than those conducted by Hippocrates 25 centuries before

We were divided into two lines among six pairs of Army doctors. The first doctor did eye charts. A second checked our auditory capacity by holding, at varying distances from the ear, a ticking watch whose sounds were thoroughly obscurred by the shuffling gait of inductees.

A third physician looked at our noses and throats. A fourth listened to our chests, defining what he could above the noise

in the hall. The fifth doctor, incredibly, examined our abdomens while we were standing. To this day, I do not know what he could have discovered. He also had each inductee sit on a kitchen chair to test knee jerks. The last doctor was interested in hemorrhoids and hernias.

Then, adorned only in our G.I. underwear, carrying our winter clothes in little baskets, we proceeded to the summer uniform area. The uniforms must have been made through



Isao Hirata Jr. as a medical student.

Dr. Isao Hirata Jr., '45-'50: "I would have been a pariah..."

The day after the Japanese bombed Pearl Harbor, the thoughts of most Yale students turned to the army and military drills. But 19-year-old junior Isao Hirata Jr. had different concerns. On Dec. 8, 1941, the FBI searched his family's home in New Haven and confiscated cameras, binoculars, even a cap pistol. Then U.S. officials froze the Hiratas' financial assets.

The reason for such treatment? Dr. Isao Hirata Sr., the father of the family, had been born in Japan. Though the 1912 School of Medicine graduate had lived in the U.S. since he was eight years old, federal law barred him from citizenship. And no matter that Isao Hirata Jr. was a U.S. citizen born to a Hawaiian mother, also a citizen, the younger Hirata could not enter the military.

Dr. Hirata Jr. says he dreaded the prospect of facing the prejudice that in other parts of the country had banished Japanese-Americans to internment camps. "I decided that I was not ever going to talk to any girls. I thought, 'Well, that's it. A social life is out.'"

To his relief, however, Dr. Hirata's classmates at Yale College and later at the medical school refused to let him become a recluse. Instead, the young Japanese-American accompanied his uniformed classmates to the New Haven Green for weekly military parades that often featured Glenn Miller and his Air Force Cadets.

"The only place I could feel relaxed was at school," he recalls, adding that his classmates "almost forcibly dragged me to parties." They also found him dates. "If

some sort of reverse lend-lease with the Swahilis. Zippers were unheard of, and only on the fifth pair of pants that 1 tried on did the buttons match the number of buttonholes in the fly.

Finally, caparisoned in our summer uniforms topped off with jaunty overseas caps, it was time for a "march" to the mess hall for our introduction to Army food—and for more culture shock. For the men of Company C, ASTP SCSU 1121, you see, had grown accustomed to multi-course breakfasts

it hadn't been for the medical school and my class, I would have been a pariah," he says.

Dr. Hirata had entered medical school after his junior year at Yale College. He received his M.D. degree in 1945. By 1950 he had completed a surgical internship and residency at Grace-New Haven Hospital and had married Mary Keeler, a 1949 School of Nursing graduate.

Determined to wear the uniform his nation had denied him during World War II, in 1950 Dr. Hirata joined the U.S. Army Medical Corps, where he served in the 97th General Hospital in Frankfurt, West Germany. He returned to New Haven in 1953 to set up a surgical practice, and continued to serve on the surgical staff at Grace-New Haven even as his days of treating "men in uniform" resumed in 1956 when he became the physician for Yale's intercollegiate athletic program.

The Yale surgeon left ivy walls and icy roads behind in 1972 to direct Student Health Services at the University of South Carolina in Columbia, a post he held until he retired in 1989. Dr. Hirata now frequents the Columbia Country Club trying to improve his golf, a sport he took up when he moved South.

"I'm going to go on the senior tour next year," he suggests with a laugh.



A contemporary photo of Dr. Hirata.

served elegantly by the waiters who had been a feature of prewar Yale dining halls.

Needless to say, the Army was less gracious in its manner of serving. Each man picked up a steel tray into which were embossed six compartments. Breakfast included canned fruit in a syrup which laved onto the scrambled powdered eggs and slices of Spam. Two slices of buttered toast perched on one corner of the tray, while on the other corner, precariously balanced, was a heavy coffee mug that was bigger than the circle pressed-out to hold it. So coffee, too, slopped over and joined the other courses of our breakfast.

Military Science

Our remaining two days at Fort Devens offered a wide range of intellectual stimulation. At 5 a.m., we lined up in front of the barracks wearing our Ballbriggan underwear and grey socks with heavy high-topped shoes and commenced jumping up and down like unsychronized valves in a V-8 car. Subsequent hours found us alternately attending sophomonic lectures and marching up and down the grounds.

These activities were punctuated by courses in bunk making. Evaluation was undertaken by dropping nickels on the tautly stretched top blankets. For variety, we swept the barracks about nine times a day. Sgt. Manley nearly blinded us with his insights into how to police the grounds: "Pick up anything that don't move, and if it ain't painted, move it."

As the medical students of Manley's Commandos marched out of Fort Devens, heady from having survived three days of basic training, we regarded ourselves as officer candidates sure to be commissioned as first lieutenants. Meanwhile, our mentor Sgt. Manley just shook his head at the hopeless recruits who, he wagered, would never make it to private first class.

We arrived at the New Haven train station and were met by Lt. Kennard, Sgt. Fallon, whom I had known from when I was a student in ROTC, and three privates who drove the Army trucks which were now loaded with our barracks bags. In anticipation of showing off our newly honed marching skills, the men of Company C formed a platoon behind the last truck. The townspeople, having grown accustomed to watching the snappy marching of Glenn Miller's Air Force Cadets, must have swallowed hard, wondering what turn the war would take if it were left in the hands of these ill-kempt, poorly shod and uncoordinated Army men.

En route to Calhoun College, where we were to be barracked, we halted across the New Haven Green at Church and Chapel. Lt. Kennard, expecting that his new command would be observed by his fellow officers, attempted, fervently but fruitlessly, to straighten up the ranks, which had a saw-toothed configuration.

After several frustrating minutes, Lt. Kennard said manfully, "Forward, column left, hutch." This was echoed by Sgt. Fallon. The unintended effect of this command, however, was to split the company into two non-equal groups.

One portion meandered north on Church Street, while the remainder started west on Chapel. In response, the lieutenant, Sgt. Fallon and a hapless corporal ran around shouting commands, more or less like the Three Stooges. The pandemonium reached a high pitch as trolley cars approached from north, west and east. Even the trolley conductors obeyed the bellowed injunctions to "Halt!"

Rather than attempt to march this non-military collection of scientists across the street, the lieutenant wisely decided to dismiss the company and reform it on the other side of Church. He then marched us across the diagonal of the New

Haven Green to the main gate of Calhoun College, where we would have to take what in marching parlance is called a "half-right," to bring us into the courtyard.

Evidently, the lieutenant had failed to take into account that an eight-man rank could not possibly squeeze through the Calhoun gate. As chaos ensued in our attempt to funnel into that narrow space, all pretenses of military precision passed away. Unfazed by this fiasco, we lugged our barracks bags to our new quarters in Calhoun and were summarily marched to Commons.

There, a few weeks ago, we would have had "dinner"; now we had "chow". We still ate under the serious and dour portraits of rectors, presidents, deans and former members of the Yale Corporation. Only, instead of having waiters serve us our meals on the beautiful Syracuse china that had graced Commons up to a few weeks before, we pushed our own Army-style metal trays down newly constructed cafeteria lines.

One Lieutenant Down . . .

Over the next couple of days, it became apparent that medical students who had once been Yale undergraduates reverted to their college ways when returned to their former haunts. We no longer acted like the professional descendants of Hippocrates, Pasteur or Sir William Osler, but more like Dink Stover or Frank Merriwell. So the authorities moved Company C from the undergraduate campus to tenements on Howard Avenue, which were turned into "barracks."

Evidently University officials also thought it might be less traumatic for all concerned if a new officer—a non-Yale man—was appointed company commander. Lt. Kennard was given a real assignment somewhere off the Yale campus, and on the fifth day of our return to New Haven, we assembled in the lecture hall of Brady Laboratory at 1400 hours to meet his successor.

At approximately 1410, Sgt. Fallon yelled, "Attention" and the members of Company C straggled to their feet from the portable student writing chair-desks in which we were sitting. We could not stand up straight because the desks cut across our upper thighs.

Our new lieutenant, clad in an expensive suntan uniform from Arthur M. Rosenberg & Sons ("Outfitters to the Military Since 1861"), strode swiftly to the front of the lecture hall where he stepped to the podium. He regarded with utter amazement the slightly stooped-over men of Company C,



1945: Posing for the class portrait.

who looked as if they might have been paying homage to him. Bewildered, the lieutenant said, "At ease."

In response, the men of Company C simply sat down, for this seemed to be the most appropriate way for one to be "at ease." Those of us with some ROTC training winced, realizing that a group of seated soldiers could not be "at ease," a command that only applies to those standing at attention or at parade rest.

Sgt. Fallon, also realizing the contradiction, again shouted, "Attention!" The more than 100 men struggled manfully to their feet, again, some of them bringing their desk-chairs with them, more or less as if they wore them. Finally the sergeant glanced somewhat ruefully at the new second lieutenant and said, "Gentlemen, be seated!" Then, briskly, he executed a smart right face, saluted and said, "Company C, Sir!"

The lieutenant, Philip K. Dienes, had been drafted shortly after Pearl Harbor and had recently graduated from officer candidate school. He had assumed that Company C would be a plush assignment. Little did he know how the urbane students would fail to appreciate the importance of Army regimen as it restricted their medical education activities.

In his East Chester Bronx accent, Lt. Dienes outlined the routine that we were to follow under his command. Wake-up was at five o'clock. At 5:30 we were to assemble in back of the tenement barracks for half an hour of exercise. We would spend the next half-hour policing the area, and at six o'clock assemble and march one block to the old Betsy Ross Tea Room, which was to serve as our mess hall.

After a half-hour breakfast, we were to march back to our barracks and collect our books. Then, students in the first two years were to march to Sterling Hall of Medicine for classes, while third- and fourth-year students marched to New Haven Hospital and to their patients.

Every Wednesday night we were to spend learning the duties expected of us as first lieutenants in the medical corps. And Saturday afternoons were to be devoted to elements of military science and tactics, and, of course, to our favorite military activity—marching.

As logical as this plan might sound, it was hindered by the fact that our new lieutenant simply did not understand about the medical school or the life of its students. For instance, medical students did not carry books, and only a few of our classes were held at the Sterling Hall of Medicine.

Furthermore, many of the clinical students did not report to the hospital at eight o'clock, but at four, five, six or whatever time they were called. Finally, students in the clinical years were expected by the medical school to wear white coats. If their utter lack of parade skills were not embarrassing enough, the clinical students looked like Pullman porters as they marched down Howard Avenue.

More evidence of SNAFU surfaced at our first lecture on military medicine given by Lt. Dienes; the subject: duties of a mess officer. In true Army fashion, the lectures, in "Q & A" format, had been prepared and mimeographed in Washington and sent out to all the ASTP medical units throughout the country.

For the first question, Lt. Dienes called out serial number 11138244. A somewhat disheveled private wearing a white lab coat over his uniform stood up and said, "King, Private John W., Sir!" The lieutenant had no way of knowing that this particular private had obtained a Ph.D. in bacteriology from Yale under the redoubtable Professor Stanhope Bayne-Jones.

Struggling to read the manual, the lieutenant intoned in his Bronx nasal twang: "Youse is a mess hall officer. Youse gets a consignment of canned meat and some of da cans is bulgin'. What's da problem?"

Replied Pvt. King without batting an eye, "Clostridium botulinum."

"Youse is wrong. It's food poisoning," said the lieutenant, baffled by the laughter of Company C.

The Ultimate Challenge

On a sweltering July day about a month after we had embarked on our military career, Sgt. Fallon ordered the men of Company C to put on our woolen uniforms. The big day had finally arrived—after a month of weekend marching practice, we were going to show off our newly acquired skills to the city.

Each man was provided with a length of lead pipe, which was supposed to be the same weight and general shape as a rifle, and we assembled on Howard Avenue for an afternoon march to the polo field near the Yale Bowl. By now, Company C had been divided into two platoons, one shepherded by the vigilant Frank Countryman and the other by Charlie Judd.

We must have presented an awesome sight as we marched down Howard Avenue to McKinley and out Legion Avenue, our lead pipes glistening in the sun. Our ability to keep step and march in time proved to be wanting still, however. To try to improve the situation, Charlie and Frank had us count in cadence to a song popularized by Vaughan Monroe. Named "Sound Off," at one point the singers counted to four in rhythmic cadence. Practice as we might, we could never quite master this, and Nick Spinelli was always shouting out a number when he was supposed to be pausing.

We at least managed to reach the polo grounds uneventfully, where we cavorted about for about half an hour while the lieutenant and his enlisted cadre lolled in the shade of the polo barn. Then we were called to attention to march back to the barracks.

On our return, we headed through the Jewish section of town, where large, virtually identical three-family homes lined the streets. In a triumph of hope over experience, the lieutenant instructed us to sing "I Got Six Pence," to improve our cadence.

Again, the result was not pretty. Our motley crew bore no resemblance to any other military organization known to man. Henry Jones, Colby Stearns and Dick Sisson, attempting to harmonize to "No cares have I to grieve me, no pretty little girls to deceive me," soon fell a good 20 yards behind the rest of the marchers.

This didn't seem to bother the townsfolk, though. As we stumbled onto Legion Avenue, two lovely elderly ladies descended from opposite sides of the street, each bearing a large oval aluminum tray loaded with paper cups filled with lemonade. The cold lemonade was so welcome on that hot July day!

We also caught the attention of some other ladies seeking the cooler air of their porches. One enraptured woman on a second-floor porch clenched her fist and shouted, "Go get 'em, Yanks!"

This so distracted some of the students that they upset the aluminum trays being held by the women on the street. As lemonade loaded with rationed sugar flowed into the gutters of Legion Avenue, Lt. Dienes put his hand over his eyes and half-heartedly murmured, "Company, dismissed." But Tom Whelan and Ronnie Losee still stayed behind to help pick up the cups.

Let no one submit that the crack troops of Company C ASTP were not also gentlemen from Yale. YM



Dr. Richard W. Breck, '45: class historian. Photograph by Drew Dole.

Many Yale Medical Personnel Did March Off to World War II

While most medical students from the classes of '44 and '45 graduated without ever seeing action in the Second World War, such was not the case for many of their younger professors and for Yale medical graduates from previous classes. Dr. Richard W. Breck, '45, in remarks prepared for his 45th-year reunion, explains that the 39th General Hospital Unit was known as the Yale Unit because most of its members had a University affiliation.

Notes Dr. Breck: "The first meeting of volunteers who would become the Yale Unit met in August 1940 shortly after the fall of France and during the first German mass air attack against London....After basic training, the unit sailed from San Francisco, arriving in Auckland, New Zealand, in November 1942."

The Yale Unit was comprised of 45 physicians, 120 nurses, eight medical administrators, six dentists and 497 enlisted men. During its 20-month lifespan, a 1,000-bed hospital built on an Auckland golf course had to be expanded to more than 2,000 beds. By April 1943, the hospital cared for 1,305 patients; by October that number had increased to 2,159. On September 23, 1943, the hospital admitted its greatest single day total: 922 patients.

In all, the Yale Unit cared for more than 24,000 patients, including casualties from some of the Pacific theater's most important battles: Guadalcanal, New Georgia, Bouganville, Iwo Jima and Okinawa.

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MINORITIES AT YSM: ARE WE COMPETITIVE?

by Dr. Forrester A. Lee Jr., '79, HS '79-'82

Several years ago l discovered an interesting piece of African-American history when some Yale undergraduates organized an exhibit portraying several black alumni born in the 19th century. One of these men, a Dr. James Hathway Robinson, came to New Haven in 1913. The previous year, he had graduated at the top of his class at the prestigious black institution, Fisk University, where he won prizes for scholarship and oratory.

With aid from an anonymous benefactor, he was invited to join the senior class at Yale; he graduated the following year, 1914. His living quarters were not on campus but rather at the YMCA on Howe Street. He continued his studies at Yale and earned his master's and Ph.D. degrees in sociology. In his thesis, he examined socio-political issues of racial relations in a southern community near his place of birth.

While his classmates and peers graduated into positions of influence and financial security in business, law, medicine and politics, Dr. Robinson returned to his hometown of Cincinnati, Ohio, and worked in the then-segregated Young Men's Christian Association. According to a Yale class reunion report, he was performing "important work on behalf of the betterment of his people." He subsequently turned his talents toward an academic career and within a short time was named dean of a black university in Ohio. He and his wife raised three children; two sons went on to become physicians, practicing in predominently black communities in Detroit and New York City. They trained not at Yale but at Meharry Medical School in Tennessee.

Had Dr. Robinson brought three sons into the world, perhaps they all would have gone on to become doctors. His third child was a daughter named Jeanne. After graduating from college, she married the grandson of a former president of the very same university at which Dr. Robinson taught. Jean Robinson and her husband moved away from the protected academic environment of their childhood to a predominantly black, middle-class community here in the Northeast where they raised a son and daughter. In 1975, their son entered the Yale School of Medicine. After 60 years and two generations, Dr. Robinson's grandson became the second member of the family to earn a doctorate from Yale.

Dr. Robinson's grandson was asked to speak to you today. He stands here before you. And this is what he has to say.

It is with some pain and a sense of irony that I point out that Yale in the early part of this century was probably more competitive in attracting minority applicants than it is today. To be sure, in the early 1900s, the number of black students who had the opportunity and the desire to enroll in the predominantly white institutions of the East was vanishingly small. But I imagine that within this group, the allure of a



Dr. Forrester A. Lee

Dr. Forrester A. Lee Jr., '79, HS '79-'82: Community Conscious

As a chemistry major at Dartmouth College, "Woody" Lee was elected to Phi Beta Kappa and became the first president of the school's Afro-American Society. Though he knew he wanted to be a doctor, he was also attracted to community work.

So after the Plainfield, N.J., native graduated in 1968, he moved to New York City to begin his professional life as an urban planner in Harlem. There he helped spark the rebirth of the 125th Street neighborhood, which includes the legendary Apollo Theatre. He also served on a task force that created a comprehensive redevelopment plan for Harlem.

His next stop was the School of Medicine, where he earned an M.D. degree in 1979. From 1979 to 1982 he completed an internship and residency in internal medicine at Yale-New Haven Hospital, was chief resident in internal medicine and served a cardiology fellowship from 1983 to 1985. In 1985, he was appointed an instructor and since 1986 has been an assistant professor of medicine. From 1984 to 1988, the Robert Wood Johnson Foundation gave Dr. Lee a career development award to study cardiac dysfunction events of diastole and their disturbances in heart disease.

Dr. Lee has developed a clinical definition and description of flash pulmonary edema and has published articles on mathematical and computer applications in nuclear medicine and cardiac physiology. In his spare time, he enjoys playing classical music on the piano.

Dr. Lee delivered this address at the School of Medicine's Martin Luther King Day observance on Jan. 15, 1990.

Yale education was strong. Whatever my grandfather's motivation was for coming to Yale, he created a family tradition of loyalty to this institution, even as he focused his life's work within the framework of institutions in the black community—the church and its associated colleges and universities. It is from these roots that my family traditions and my aspirations are nourished.

In thinking about my grandfather, I realize that my sense of time is no longer marked by weeks, or semesters, or even years, but rather by generations. Perhaps that is because I have reached that stage in life when one realizes that there are commitments and sacrifices one must make today so that the generations which follow will find a more satisfying pathway into their own future. This is the tradition of all upwardly striving people and the tradition which continues to carry forward our black community.

My oldest daughter, N'tanya, a representative of my family's youngest generation, recently graduated from high school. At the time of her commencement, the family gathered at our house, some 25-strong, from all parts of the country. All were bearing small gifts and an unrestrained measure of love and support as they wished N'tanya well on her next important journey, through college. My daughter and I talked later and recalled the times when each family member who visited that day had significantly touched her life. I thought then that if I and my family had but one gift to give the community, it would be the unbounded potential of my two daughters, truly gifts to our community and to the world. I knew then that I would rather be remembered by this gift than anything else I could accomplish in my life.

Restructuring Society

My parents sent me off to college during more tumultuous times, the mid-1960s, thus forever branding me as a member of the '60s generation. After finishing college in 1968, I put my medical school aspirations on hold. Fundamental events were restructuring parts of our society, and I wanted to join in that process. For six years, I worked in New York City with community organizations that were building housing, parks and schools for their neighborhood. In time, I became frustrated by the halting flow of federal resources. When the Nixon administration moved into full gear, federal urban redevelopment funds all but dried up.

Other more fundamental issues pained me in my last years in New York—not just the withdrawal of federal commitments and resources. A neighborhood leader, at the time of the death of one of her sons, told me a story, versions of which I had heard many times from other residents of the community. She had come North with her family from the Carolinas in the 1920s and settled in a tenement building in central Harlem.

Soon, her neighborhood was populated by many other families from that same Carolina community—most leaving behind their plows and hoes to seek the promise of a weekly paycheck in the factories of the North. She raised a family of nine children. They were bright, energetic and loving kids, all proud of their mom's accomplishments. By the time I left New York, two of the kids had died on the streets, three were in other ways lost to the streets, and the remaining four faced a gloomy and uncertain future. And it struck me one day in the early 1970s that it was not only these children, but a whole generation of black youth who were dead or dying on our urban streets.

The discouragement I felt upon leaving New York occasionally gives way to optimism in my days here at Yale.

Recently, I interviewed a young black medical student who was applying to our internal medicine residency program. He had grown up in the Bronx, the son of a New York City policeman. With talent in both the arts and sciences, he was accepted into the Bronx High School of Science, where he compiled an outstanding record.

He spent the next four years in Boston. Weary of an elitist atmosphere that seemed always to focus on the color of his skin and not the quality of his intellect, he reluctantly abandoned the East Coast and embarked on his medical education in the San Francisco area. There he prospered, again finding the conviviality and acceptance that he knew during his high school years.

His record of achievement at medical school was outstanding, not only for the quality of his performance in basic sciences and on clinical rotations, but also for the energy he invested in research projects based in minority communities of the Bay Area. He also found time to lead student initiatives for minority recruitment.

Notwithstanding a renewed sense of accomplishment and purpose during his years on the West Coast, he set his sights on the East for further training, focusing almost exclusively on programs in New York City. Well down on his list of possibilities was the training program here at Yale. He came to interview at Yale not to discover details of intern call schedules and resident responsibilities. Rather, he came to find out what was the quality of the experience for black residents here.

Incomplete Welcome

I wish I could have told him that Yale, as one of the nation's leading biomedical institutions, had recruited a large and dedicated group of black faculty who served as mentors and role models for minority medical students and trainees in the residency and fellowship training programs. I wish I could have introduced him to several of our many black residents, each of whom would offer him insights into the quality of their experiences at Yale.

I wish I could have informed him that the medical school graduated more than a dozen minority students each year, and that within this group, there was a tradition of intense competition to gain a spot in the Yale-New Haven residency training programs. I wish I could have told him that his concerns were not unlike those of other black applicants I had interviewed this year, and that it was in the context of such concerns that the Yale medical community redoubled each year its efforts to be responsive to its minority constituency.

Of course, I could offer none of these statements. Indeed, he was the only black applicant I had interviewed for the year. Our internal medicine program has only one black resident. As the interview ended, I once again experienced the dismay I've felt so often in the past that yet another exceptional black student would carry his talent and his energy to an institution other than Yale.

Had we had the time, I would have said more to this applicant: I would have told him that we would need him as a physician to serve in our communities; that we would need his talent for scholarship and research on the faculties of the great medical teaching centers; that we would need him to provide leadership and guidance to those minority students who would follow his example. I would have pointed out that he would likely work harder than he might have if the small cell of his individual existence were all that mattered in this world. He

Continued on page 14



Dr. Lynne Perry (center) converses with fourth-year Yale medical student Beverly Stoute and Dr. Perry's brother, Victor, a second-year student.

Dr. Lynne V. Perry, '86, HS '87-'90: Finding One's Niche

Dr. Lyune V. Perry, chief medical resident and instructor in the department of medicine, is one of 10 physicians and medical students in her immediate family—including her parents and seven of her nine brothers and sisters. She plans to be an academic cardiologist and in July will begin a cardiology fellowship at Johns Hopkins Medical School. Recently Leah D'Eugenio, staff assistant at the Yale School of Medicine Office of Public Information, interviewed Dr. Perry.

It's remarkable that so many in the same family have gone into medicine. Were any of your grandparents physicians?

No, no. My father was from a small town in Texas. He wanted to be a doctor since he was about 12, just because he was always interested in science. My mother came from more of a middle-class background. Her father was a self-made businessman who never went beyond the ninth grade. Shortly after my maternal great-grandfather received a grant to open the first college for blacks in Texas, he was shot down in the process—literally gunned down on the street. So my grandfather became very anti-education and did not want my mother to go into medicine. He said she should be a piano teacher, something practical that did not require secondary education. My parents wed when they were 23, and worked their way through Howard Medical School. During this time, the late 1950s, few women were admitted and the medical school forbade children on campus. So my two brothers were

sent to live with my grandparents until my parents graduated. I was born nine days before their graduation. They actually wanted to go to school in Texas but were told that the schools "were not ready to accept black students," even though my parents were perfectly qualified. I think the University of Texas Medical School did not graduate the first black student until the early 1960s.

Did your parents influence your decision to become a physician?

Yes, unquestionably. My parents are in private practice in Houston, Texas, and maintain some academic ties with the Baylor College of Medicine, where they both did their residencies. My father is a cardiologist and my mother is a pediatrician. They were clearly quite enthusiastic about their own careers, but they always encouraged us to be individuals and stressed the importance of a good education. When we were children, my dad would sit us down every Friday afternoon after school and lecture us on cardiac physiology and anatomy. My brothers and sisters and I just thought it was the worst thing, and we thought we would never go into medicine! We all initially wanted to be lawyers, but by the second or third year in college we had decided that medicine was the field for us.

I went to college at Harvard, and then to medical school here at Yale, and was the first physician among the children. My two older brothers felt pressured to go into medicine and decided against it. I have a brother, Loring Isaac, who is an otolaryngology resident at Lenox Hill Hospital in New York; a sister, Angela, who is an ophthalmology resident at Howard University; a sister, Patricia, who is a first-year medical student at Tufts; a brother, Victor, who is a second-year

medical student here at Yale; a sister, Pamela, who is a first-year student at Northwestern Medical School; and a sister, Diane, who is a first-year medical student at Boston University. My youngest brother, Christopher, is interviewing at medical schools.

What made you decide to serve your residency at Yale?

I found this environment very independent and nurturing, and extraordinarily friendly. The main reason I chose internal medicine was probably due to the influence of my father along with my current chairman, Ed Cadman and some previous chairmen in internal medicine. After internship and residency in internal medicine, I was asked to be chief resident. Dr. Cadman has been quite supportive, his office door is always open. Dr. Lawrence Cohen, professor of cardiology, has been a mentor since medical school; to me, he represents the consummate clinican-teacher. Dr. Samuel Thier was chairman until I was a fourth-year medical student. He seemed interested and optimistic about my career-it's always helpful to have someone you look up to feel that way about you. Then Dr. Robert Donaldson became acting chairman; he really enjoyed being out there on the wards where medicine was happening. He would show up on rounds frequently, which was encouraging. He gave me tips about the future in terms of refining my career and told me it's

important to be able to find a niche for oneself in any institution, especially Yale. He was also very encouraging in terms of wanting me to pursue an academic career.

We did an article about women in medicine last year, and a black woman we spoke with pointed out that it is hard to find black mentors, black role models and female role models.

A lot of my friends chose not to do their residency at Yale for that reason. They felt very isolated here. As for myself, my parents have been excellent role models; it was normal for me to see black people and women as physicians. I think it is a little easier from that standpoint to come to a city like New Haven, a poor city where there is not a large black middle class. You don't get a sense of black professionalism here. In general, the few black hospital staff you see are not physicians or medical students; they are technical and clerical workers or housekeepers. I think that when black students see that, they realize that it's going to be difficult to succeed in this environment. But I do feel that somehow I belong to this institution. Dr. James Comer and Dr. Forrester Lee have been important black mentors for me. I remember as a third-year medical student, Dr. Lee allowed me to assist him to place a cardiac catheter. That probably had more to do with me deciding to be a cardiologist than anything. It's very important to have that kind of support.

Rockefeller Foundation Backs Dr. James Comer's Initiative

As a young psychiatrist at the Child Study Center in the late 1960s, Dr. James P. Comer began the School Development Program, a pilot project to encourage teachers, staff and parents to work as a team to support low-income children in local schools. Because of the program's success in raising students' achievement, cutting absenteeism and boosting self-esteem, by the end of the '80s, the initiative had been adopted in more than 70 schools nationwide.

Now, as the 1990s begin, the Rockefeller Foundation plans to spend an estimated \$15 million over five years to make Dr. Comer's educational approach even more widespread. Dr. Comer, the Maurice Falk Professor of Psychiatry and in the Child Study Center, is working in partnership with the foundation to:

- promote his techniques for making schools in poor communities work better for at-risk children;
- train school leadership teams to manage schools in ways that improve the life prospects of at-risk children;
- fund community and parent support in five pilot cities for school reforms that benefit disadvantaged children.

The \$1,390,000 budgeted for 1990, the first year of the grant, will have local as well as national impact. Dr. Comer will help set up an urban education consortium involving the Child Study Center, Southern Connecticut State University and the New Haven school system.

This group will design and field-test a teacher preparation model based on the Comer approach that will cover such subjects as the educational and developmental needs of urban students, the importance of home-school partnerships and parental involvement, collaborative school management, and effective behavior management and problem-solving strategies.

On a national level, Dr. Comer will train faculties and officials at schools of education and state departments of education in his methodology. In the first such effort, the District of Columbia Public Schools, working with Howard University, will introduce the Comer approach to 10 schools in 1990, and, over time, in every elementary school in Washington, D.C.

The foundation also will produce a videotape series with accompanying manuals to acquaint educators and parents across the country with the Comer process and to motivate and train school staffs, parents, administrators, and local and state education officials.

In announcing the grant, Rockefeller Foundation Vice President Hugh B. Price observed: "More than eight million American children, many of them minority and poor, are estranged from...academically inferior, socioeconomically segregated schools. We seek to identify and encourage adoption of the approaches that hold the greatest promise for improving the educational performance and life prospects of these youngsters. Dr. Comer's record in turning around failing schools holds enormous promise."

The Rockefeller Foundation has a longstanding relationship with the University. The foundation has supported some 30 research projects at the School of Medicine's department of epidemiology and public health, the Institute for Social and Policy Studies, in addition to programs of the Yale Repertory Theatre.

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might complain that it was unfair for him to carry such a large burden. And I would reply that in his hands rested the leadership of the community. I would ask him to accept it, to carry it responsibly, and to carry it with pride.

It is unlikely that we will entice this black candidate into our internal medicine training program. I make this judgment not based on what transpired in our interview, but rather on the basis of the medical center's poor track record in attracting black candidates. Our inability to recruit and retain minority students, house officers, fellows and faculty in substantial numbers is well documented. It is not my purpose today to dwell on these dismal statistics. The fact that more than one-quarter of the full-time black faculty is represented before you on this stage today is sufficient testimony to the scope of this problem.

Perhaps there was a time when a talented black student with high aspirations would have included Yale among the small number of institutions to seek out for educational advancement. As I have said, such was likely the case in the time of my grandfather. But over the past several decades and for the foreseeable future, the competition among universities for students in the minority applicant pool has been and will continue to be exceptionally intense. For most of these students, Yale simply represents one of many institutions offering to provide quality training and education at an exceptionally high premium.

Halting Progress

It may be helpful for you if I review how far we in the United States have come in the past two decades in enlarging the pool of minority applicants for medical school. In 1970, the Association of American Medical Colleges task force on expanding educational opportunities in medicine for blacks and other minorities proposed that U.S. medical schools increase the percentage of minority students from 2.8 to 12 percent by 1976. The goal was "to achieve equality of opportunity by relieving or eliminating inequitable barriers and constraints to access to the medical profession."

By 1976, the percentage of all minorities in medical school had risen from 2.8 to 8.1 percent. That year, black students comprised 6 percent of medical student enrollees. Sadly, as we enter the 1990s, the percentage of black students in American medical schools remains at 6 percent. In 1979, 1,108 black students enrolled as first-year students in medical colleges. During the next 10 years, this number never increased by more than 10 percent and by 1989, had actually declined to 1,014 students.

The last decade brought a dramatic, 30 percent decline in the number of all applicants to medical schools; applications from black candidates fell less precipitously, by 13 percent. In spite of the downward trend in medical school applications, the number of physicians entering the manpower pool remained constant through the '70s and '80s. Thus, there is no present or projected shortage of physicians. But there does remain a critical shortage of minority health professionals. It is a sobering fact that no progress in this area has been made for more than 15 years.

The lack of progress in increasing minority representation in the medical profession parallels other trends in higher education. For example, the percentage of black college enrollees declined from 9.4 percent in 1976 to 8.6 percent in 1986. This decline can be traced to many roots, including

reduced financial aid commitments from government, private and university sources despite rising tuition costs.

During this same period, Yale medical school and Yale-New Haven Hospital conceived, implemented and funded programs and projects of great complexity and scale. Each day as I pass the swiftly rising edifice of our new Center for Molecular Medicine, I marvel at the capacity of the School of Medicine to commit resources toward sharply focused goals. This medical center has set in motion a vigorous program of growth and development for the years ahead to ensure that its leadership in the biomedical community will not be eclipsed.

What are this medical school's policies and goals for the '90s concerning minority representation? We have established several important initiatives in the last two years, including an Office for Minority Affairs. We have begun in a small way to respond to the financial concerns that so dramatically influence choices among minority medical school applicants. We have created several forums for discussion and debate around concerns important to the minority community. And with these changes, we are only beginning to acquaint ourselves with the formidable challenge of minority student, staff and faculty recruitment.

During the past decade, a few educational institutions did respond decisively to the problem of minority under-representation. I would suggest that we base our plans on the University of Wisconsin's "Madison Plan," which was announced in 1988. This plan committed the university to doubling minority enrollment over a five-year period. In response, the university created 150 new financial aid packages for low-income students, endowed 25 minority fellowships and allocated funds for hiring 70 new faculty over three years.

I do not wish to suggest that there are simple and easily implemented solutions here at Yale. But I want to emphasize that committing adequate resources and fundamentally changing our approach to the problem of minority underrepresentation must have the highest priority at all levels of this institution. We cannot endure yet another decade of failure. I must stress the words "committing resources." I believe that at the leadership level and throughout this medical community, there is a consensus that we must do better at minority recruitment. It is not for lack of consensus or policy that we have failed. Quite simply, we have not committed appropriate and adequate resources.

Two years ago, only four minority medical students enrolled in the YSM Class of 1992. For the first time since I have been associated with this institution—some 15 years—Yale was confronted inescapably with the fundamental deficiencies in its capacity to attract and recruit minority students. The history of benign indifference which culminated in this tragedy—and tragedy is the most appropriate word I can find—must never be repeated. As members of a great university, we can be no less committed to excellence in our laboratories and clinics than we must be to developing and nurturing the human potential of black students in this generation.

This is a day when we allow ourselves to soar on the wings of our dreams. It was the dream of my grandfather that his sons and daughters would live to see a wellspring of creativity and brilliance in our black community overflow throughout the universities of this land. It is his vision and dream I pass on to you today.

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PSYCHE, SOMA AND SOCIETY: PSYCHIATRY AT YALE

by Susan Okula and Gregory R. Huth

As Hartford-area attorney Patricia Perkins looks back, she can see the problem developing from the time she was 10 years old: In a seemingly innocuous gesture of a devoted student, she would redo her homework two or three times to make sure it was perfect. Years later in her legal practice, this translated into checking and rechecking the tiniest details of her cases. At the time she did not consider such attention out of order, for in her profession decisions could be won or lost by noticing subtleties in fine print, the placement of a comma.

When she began staying up 24 to 48 hours at a stretch, however, combing through her files to make sure the margins on legal documents were the right size, her obsession ended up costing Ms. Perkins her job. Signs of trouble appeared outside work as well. She feared that her children would be poisoned if they touched things in the house. If she saw glass on the street, she would stop and pick it up, worrying that a car would drive over it and get a flat tire, which in turn would lead to a fatal crash. "I finally said to myself there was something wrong here," she reports.

As one whose life has been complicated by mental illness, Patricia Perkins is not alone. Each year in the United States, nearly one in seven people is affected by a mental disorder or disability. Between 9 million and 16 million adults are diagnosed with manic-depression, depression and other depressive disorders. About 1.5 million Americans are schizophrenic, with 300,000 new cases detected annually. In any given six-month period, 6 to 8 percent of the population has an anxiety disorder.

Moreover, 18 million adults abuse alcohol and more than 5 million use cocaine. And by the year 2000, as many as 2.4 million people in an aging America will be diagnosed with Alzheimer's disease or other severe dementias.

Fortunately, psychiatry has come a long way since 70 years ago, when treatment meant the psychoanalytic couch for the wealthy and fortress-like asylums for less fortunate patients. Today's repertoire includes various forms of psychological treatments, including individual psychotherapy, treatment and analysis of couples and families as well as group psychotherapy.

Mental health practitioners of the 1990s are an interdisciplinary group which includes psychologists, nurses, social workers and mental health workers, often in partnership with psychiatrists. Medications, prescribed by psychiatrists and other physicians, are frequently the mainstay in treatment, particularly of more severe disorders.

Psychiatrists also are putting to good use the explosion of knowledge in the fields of neuroscience, molecular genetics

Photographs by James Anderson.

Among his many responsibilities, Dr. Benjamin S. Bunney serves as chairman and chief of service in psychiatry at Yale-New Haven Hospital and chairman of the board at Yale Psychiatric Institute.

and pharmacology, allowing practitioners to better understand and treat biological disorders that lead to millions of cases of debilitating mental illness.

"We've made major breakthroughs in neurobiology, understanding the components of the brain that run the individual," observes Dr. George Heninger, professor of psychiatry and associate chairman for research. "That has allowed us to redefine mental illness not as personal failure but as a dysfunction with a physical cause and a behavioral consequence." Yale's psychiatry department, under the chairmanship of Dr. Benjamin S. Bunney, also a professor of pharmacology, has manifested—and advanced—the field's revoluion through its mission of patient care, teaching and research. With 110 full-time and 290 affiliated faculty

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members, the department ranks second in size only to internal medicine.

Patient care by Yale psychiatric faculty takes place in a number of settings. The department operates its own psychiatric hospital, the Yale Psychiatric Institute (YPI), and plays a major role in the psychiatric services of Yale-New Haven Hospital and the Veterans Administration Medical Center in West Haven. The Yale psychiatry department also professionally staffs and administers the Connecticut Mental Health Center (CMHC), a program operated jointly with the state of Connecticut.

Together, these facilities offer 320 inpatient beds and a cornucopia of outpatient programs that treat more than 12,000 people a year. Psychiatrists who staff the University Health Services' division of mental hygiene also have psychiatry department faculty appointments. Annually, the division sees about 1,000 Yale students and staff.

This expansive program offers an ideal setting to address the educational needs of the Yale medical students and 90 or more residents who work with department staff. Rounding out its three-fold mission, Yale psychiatry continues an impressive heritage in research, as well. More than \$25 million in federal, state and private funds supports studies undertaken by 51 faculty members.

The help Patricia Perkins received from School of Medicine faculty and staff illustrates how effectively this research can be applied clinically. Ms. Perkins' psychiatrist referred her to CMHC's Obsessive-Compulsive Disorders Clinic after she had been hospitalized twice, and had seen two therapists who prescribed copious amounts of tranquilizers to no avail. Admitted as an inpatient, Ms. Perkins began taking the drug fluvoxamine as part of a clinical trial run by Dr. Wayne K. Goodman, assistant professor of psychiatry and director of the clinic.



Dr. Lorraine D. Siggins, chief of the psychiatric service at the Yale Health Plan.

An anti-depressant, fluvoxamine blocks the brain's uptake of serotonin, a chemical messenger that regulates sleep and helps control repetitive acts. Two-thirds of Dr. Goodman's patients, including Ms. Perkins, improved on fluvoxamine. She returned home to resume a healthy relationship with her children and within five months began a new job.

Ms. Perkins also helped found, along with Dr. Goodman and two other patients, the OCD Foundation, a non-profit association to help prevent, control and find a cure for the disorder, as well as to support those affected by it. The group has a membership of 6,000, a mailing list of 88,000, and has served as the model for 125 such self-help groups across the country.

Dr. Bunney observes that "we are entering an era of integration, where the best of analytic theory and practice, the best of psychosocial psychiatry and the best of biological psychiatry are being combined for a much better understanding of normal and abnormal behavior." He cites, for instance, the research of Dr. Morton F. Reiser, the Alfred E. Kent Professor of Psychiatry, and his colleagues, Professor Marshall Edelson, M.D., Ph.D., and Dr. Bruce E. Wexler, associate professor. In their psychoanalytic studies of the mind—a longstanding scientific interest in the department—these faculty members are focusing on the dual conceptual/clinical challenge of relating mind to brain and body.

In the area of patient care, this confluence of disciplines has been put to work for patients at Yale-New Haven Hospital, which offers psychiatric help through inpatient units for both adults and adolescents, and through outpatient and consultation services. Dr. J. Craig Nelson, professor of psychiatry and director of the psychiatric inpatient services, points out that a new day hospital will open in the fall.

Noting the increase of older psychiatric patients, a reflection of an aging population, Dr. Nelson wants to step up services to the elderly. The inpatient program already works closely with YNHH's geriatric assessment unit and consultation service; within the year, the hospital plans to develop a geriatric affective disorders clinic for outpatients. Dr. Nelson says he also wants to improve contacts with local nursing homes.

While patients at the other end of the age spectrum, young children, are treated by psychiatrists at the Yale Child Study Center, YNHH's adolescent acute unit serves young people in the 13- to 24-year- old age group. Directed by Dr. David Greenfeld, associate clinical professor of psychiatry, this unit offers comprehensive services and has developed a nationwide reputation for treating young patients suffering from eating disorders and Tourette's syndrome.

Young people are also served by the University Health Services' division of mental hygiene. The division counsels Yale students who often are evaluating themselves, their family relationships and their future, even as they face the rigors of scholarship at a leading university.

"We see students with a wide range of problems, from immediate distress over parental death or illness right though to serious psychiatric illnesses," reports Dr. Lorraine Siggins, the division's chief psychiatrist.

One of the most pressing challenges mental health care professionals face is meeting the rising demand for their services. Historically, an emphasis on one-to-one therapy—an expensive, labor-intensive approach—has limited private psychiatric care to the affluent or the very well insured.



Dr. Ezra E.H. Griffith, director of Connecticut Mental Health Center (seated at left), with Dr. Selby C. Jacobs, assistant chief of service, psychiatry, Yale-New Haven Hospital (standing), and Dr. Dennis S. Charney, chief of the psychiatric service at the Veterans Administration Medical Center in West Haven.

Connecticut Mental Health Center: Undertaking New Responsibilities

As the Connecticut Mental Health Center approaches its 25th anniversary in the fall of 1990, the institution and its director, Dr. Ezra E.H. Griffith, have added regional responsibilities to an already formidable charge to provide mental health services to low-income people from greater New Haven.

A cooperative venture between the Connecticut Department of Mental Health and the University, CMHC has assumed the role of lead agency in charge of coordinating mental health care in what is termed "catchment area 7" of the state's new Managed Service System of Care. Area 7 includes Bethany, Hamden and Woodbridge in addition to New Haven.

The system, established by the state legislature, subdivides Connecticut into catchment areas within five regions, to better manage Connecticut's mental health services. As catchment area 7's lead agency, CMHC distributes state funds to 15 institutions, including mental health services, and vocational and rehabilitation programs.

Explains Dr. Griffith, "We are responsible for bringing them together into a cohesive network of integrated, coordinated services." Thus, CMHC must set mental health priorities for the area in accordance with state guidelines, ensure those priorities are implemented, and evaluate agencies receiving state funds as part of the area plan.

CMHC also continues to fulfill its mission of patient care, research and education. Each year more than 4,000 people, most of them economically disadvantaged, walk through the center's doors seeking help for serious psychiatric problems,

often complicated by substance abuse. Some become inpatients in CMHC's 41-bed facility; most receive care through outpatient clinics and therapy groups.

Almost all CMHC physicians are full-time faculty members, engaged in the full spectrum of research, from the biological basis of mental illness to mental health services policy. The Abraham Ribicoff Research Facility, located in the basement and on the third floor of CMHC, houses 10 internationally known principal investigators devoted to combining basic neuroscience and clinical research.

Amid the bustle of clinical care and research, CMHC conducts its third mission—training. This year the center has helped teach 26 psychiatric residents, nine psychology fellows, 28 nursing trainees, four social worker trainees, eight chaplaincy trainees and 11 research fellows.

Dr. Griffith explains that the new managed care system has repercussions for CMHC's training and patient care missions: "The challenges are to think about training in a more integrated, more coordinated way. How does what we do fit in with what other Yale institutions are doing? How do we not duplicate? How do we coordinate our efforts?"

Himself an expert in cultural and forensic psychiatry, Dr. Griffith sees two ominous developments in New Haven that both reflect and threaten the community's mental health: drug abuse and the increase in homicide, especially among blacks. "These are obviously not simple, straightforward mental health issues," he acknowledges. He adds that because poverty is one of the root causes of the drug abuse and violence, "our mental health institutions alone cannot solve the problem. Until society decides to face urban poverty, the mental health crisis in New Haven and other cities will only grow worse."

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In addition to numerous windows, bold geometrical forms throughout the new YPI structure help minimize the feeling of institutionalization.

Yale Psychiatric Institute: "Light and Hope for Many"

On a cloudless afternoon, visitors entering the new Yale Psychiatric Institute lobby are welcomed by a flood of sunlight. It streams in from the skylight two stories above and illuminates the courtyard ahead, framed by a wall of windows. Natural light enhances a feeling of openness throughout the \$13 million facility; hence, the theme for YPI's November 1989 dedication: "Light and Hope for Many."

YPI is one of a small number of hospitals nationally that specializes in mentally ill young adult and adolescent patients who have not responded to previous hospitalization. Last December, the 58-year-old institute, operated by Yale's psychiatry department, moved back to the Hill neighborhood from temporary quarters at Albertus Magnus College, three miles away. The new 76,000-square foot, 66-bed hospital occupies the block across from the Jane Ellen Hope Building on Congress Avenue.

Designed by Frank O. Gehry of Santa Monica, Calif., in collaboration with Allan Dehar of New Haven, the YPI complex is made up of three connected buildings, two of which are used for treatment. The third houses faculty and administrative offices, with space set aside for molecular biology and genetics laboratories. One of the buildings features a gymnasium.

Dr. Benjamin S. Bunney, chairman of psychiatry, reports that the design has been enthusiastically received by patients. He says the YPI campus offers "an exciting environment designed to enhance our patients' recovery."

Dr. Ralph E. Hoffman, associate professor of psychiatry and YPI's medical director, agrees. "The design is having a real impact on how patients and staff are interacting."

Dr. Hoffman explains that the average patient stay is substantial, ranging from four weeks to a year, because YPI therapists strive "not only for symptom reduction but long-term impact on the prognoses of our patients." A multi-disciplinary team treats a variety of illnesses, including schizophrenia and affective and behavioral disorders.

YPI's move back to the medical center has enhanced research as well as treatment. "Being located close to the medical school encourages our collaborative work with basic science researchers," says Dr. Hoffman. Research projects at the center include investigations into schizophrenia, conduct disorders, biochemical markers of depression, and studies of how patients and their families adjust after the patients have been released from hospitalization.



Dr. Thomas H. MacGlashan will begin in the fall as YPI's psychiatrist-in-chief. A specialist in the longitudinal course of severe psychiatric illness, Dr. MacGlashan is director of research at Chestnut Lodge Hospital, a psychiatric facility in Rockville, Md.

Increasingly, however, insurance companies and Medicaid are covering limited mental health care services, thus boosting the number of people who are seeking help from psychiatric professionals.

To extend the helping hand of psychiatry to people regardless of their financial circumstances, Dr. William H.

Sledge, associate professor of psychiatry, and colleagues have implemented a new approach. They have organized "continuous treatment teams" at CMHC, where he is clinical director.

Each team comprises 12 to 14 mental health professionals—including psychiatrists, psychologists, nurses, social workers and trainees in the irrespective fields—who together treat 300 to 350 patients. Teams plan and implement the full range of treatments, from outpatient group therapy to inpatient care. The teams also help low-income patients to gain government aid, better housing, or to enroll in rehabilitation programs.

The Yale psychiatry department serves yet another constituency at the West Haven VA hospital. Here outpatient programs treat veterans affected by schizophrenia, mood disorders, and alcohol and substance abuse. These programs are complemented by 165 psychiatric inpatient beds, including a halfway house located in the hospital.

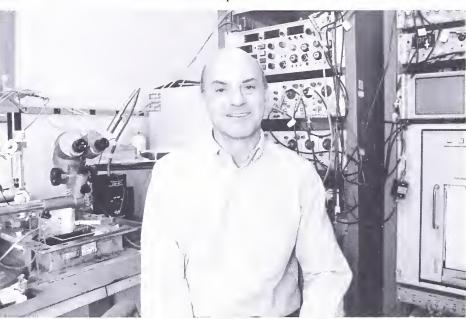
The West Haven VA also runs one of four federally funded centers for post traumatic stress disorder, or PTSD. This illness is characterized by a variety of symptoms brought on by severe environmental stress, such as combat or a natural disaster. PTSD, long ignored, was found to affect 15 percent of combat veterans more than a decade after the Vietnam war had ended. About 250 patients are receiving treatment for the disorder in West Haven.

Yale's leadership in clinical neuroscience research has led to discoveries that may improve treatment of PTSD. Reports Dr. Dennis S. Charney, associate professor and chief of psychiatry at the West Haven VA hospital: "Our clinical studies have found that severe stress appears to produce persistent alterations in brain neurochemistry, probably involving the norepinephrine system." Once those changes can be defined, the Yale scientists hope to find medication that reverses them and to couple drug treatment with psychotherapy.

Scientists at the federally funded schizophrenia center at the West Haven facility focus their studies on a disease estimated to occur in 1 percent of the population worldwide. Under the guidance of co-directors Drs. Bunney and Charney, and its scientific director, Robert B. Innis, M.D., Ph.D., assistant professor of psychiatry, the center undertakes a wide-ranging research program. This includes analyzing blood samples from families with a high incidence of schizophrenia in search of possible genetic clues, and developing new treatment approaches.

The search for better schizophrenia treatments at the West Haven VA relies on some remarkable new tools that scientists are employing to coax the brain into revealing its secrets. For instance, researchers for the first time can examine chemical events in the brain by using SPECT, Single Photon Emission Computed Tomography.

After injecting a radioactively labeled drug into a healthy human subject, Dr. Innis and his team, in conjunction with the department of diagnostic radiology, use a SPECT scanner to follow how the drug disperses in the brain. By synthesizing highly specific probes for certain brain chemicals, Dr. Innis has studied receptors in the brain for valium and anti-



The work of Dr. George K. Aghajanian, Foundations Fund for Research in Psychiatry Professor of Psychiatry and Pharmacology, illustrates how biological and clinical research go hand-in-hand at the psychiatry department. Dr. Aghajanian's basic research into neurotransmitters and related psychotropic drugs has helped improve treatments for opiate withdrawal and depressive illness.

psychotic medication. He points out that subjects receive a very low dose of radiation; the valium study, for instance, exposes a subject to radiation equal to about two chest X-rays.

While SPECT does not have the high spatial resolution of Magnetic Resonance Imaging (MRI), it surpasses MRI in detecting and measuring substances in very low concentrations. One day, this new technology may prove a more cost-efficient clinical tool than PET—Positron Emission Tomography—because SPECT uses radioactive iodine that does not require expensive cyclotron processing as do the isotopes used by PET.

Another study using laboratory animals illustrates how Yale scientists are applying basic biochemical and molecular biological approaches to psychiatric problems. In this research using rats, Dr. Eric Nestler, the Elizabeth Mears and House Jameson Assistant Professor of Psychiatry and Pharmacology, and Dr. Ronald Duman, assistant professor of psychiatry, are studying the biochemical basis of drug addiction.

"We are finding that opiates, cocaine and other substances alter intracellular messengers in the brain and that these changes mediate the effects of the drug on brain function," Dr. Nestler reports. "When a person takes cocaine or heroin, it produces chemical changes in specific brain regions that contribute to drug addiction." Among the brain regions implicated are the ventral tegmentum and nucleus accumbens, which appear to play a role in the craving of abused substances, and the locus coeruleus, associated with physical addiction to opiates.

"Our goal is to identify the biochemical changes that underlie addiction so we can develop drugs to prevent or reverse substance abuse," explains Dr. Nestler. He hopes that



Dr. Malcolm Bowers, associate chair for clinical affairs, discusses the day's schedule with second-year psychiatric residents Drs. Cynthia S. Carter (right) and Ellen Smith (center).

A Yale Education in Psychiatry: Intensive, "Hands-on" Training

"The Yale psychiatry department has played a major national role in training psychiatrists from the late 1950s to the present," points out Dr. Malcolm B. Bowers Jr., professor of psychiatry and director of residency training for the department. A variety of clinical services associated with the department help train not only psychiatry fellows, but also students in such fields as psychology and nursing.

In their four years of postgraduate work, residents move from intern positions at affiliated general hospitals throughout the state to working at psychiatric programs run by Yale medical faculty members. "The training program is quite clinically intensive," Dr. Bowers points out. "Residents take care of the patients. Though they have very extensive supervision, they are the ones on the firing line."

Noting the increasing numbers of women who are specializing in psychiatry—in keeping with a nationwide trend, half of the department's residents are female—Dr. Bunney wants to raise the percentage of tenured women faculty members in the department. Junior women faculty members often opt out of the high-pressure academic track as they begin to raise families, he observes. Dr. Lynn W. Reiser, director of medical studies, and Dr. Bunney hope to develop a fellowship program that will bring women back into the academic fold as their child-rearing duties ease.

within a few years genetic testing will be able to identify individuals especially vulnerable to drug abuse.

That genetic trail is being sought by Dr. Kathleen Merikangas, Ph.D., associate professor of psychiatry and epidemiology. In longitudinal studies following large groups of families, Dr. Merikangas wants to discover if genetic factors increase the chances of alcohol or cocaine addiction.

The New Haven community has directly benefitted from the medical school's drug abuse research. Early this year the National Institute on Drug Abuse awarded a five-year, \$10 million grant to the medical school, CMHC and the APT Foundation, a locally based organization for drug addiction prevention and treatment. Administered by Dr. Thomas R. Kosten, associate professor of psychiatry, the grant will fund research into new drug abuse treatments, create five inpatient

beds at CMHC to care for psychiatrically impaired substance abusers, and institute a relapse prevention program for cocaine-abusing pregnant women.

Perhaps one of the most prominent examples of the psychiatry department's new leadership role in scientifically based research for mental and neurological disorders is the Parkinson's disease fetal transplant program, directed by Drs. D. Eugene Redmond Jr., professor of psychiatry, and Dennis D. Spencer, the Nixdorff-German Professor of Neurosurgery. Initiated by Dr. Redmond and based on years of basic neuroscience research carried out in his and other psychiatry department laboratories, the program represents a collaborative effort by a group of medical school faculty from the departments or sections of psychiatry, neuroanatomy, neurosurgery, obstetrics and gynecology, and immunology.

Together this diverse group has developed a nationally recognized model protocol for transplanting fetal midbrain dopamine cells into the brains of 20 severely ill patients suffering from Parkinson's disease. [See "Fetal Neural Transplants: Promising, Politically Proscribed," YALE MEDICINE Spring 1990, page 16.]

Forging the Future

Advancing technology and burgeoning knowledge of the brain and its biochemistry will continue to shape psychiatry's practice in dramatic ways. Notes Dr. Bunney, "It will not be too long before psychiatry for the first time will have its own diagnostic procedures." In addition to chromosome analysis, for instance, SPECT may be used routinely in a general hospital setting to help diagnose biochemical problems that may cause mental illness.

In anticipation of such developments, both Dr. Sledge, the department's associate chairman for education, and Dr. Bunney speak of the need to integrate neuroscientific and psychological aspects of psychiatry into the curriculum.

"It's becoming clear that psychiatrists will need to know neuroanatomy, biochemistry, pharmacology, neurophysiology and genetics if they are to keep up with the field as 21st century practitioners," Dr. Bunney points out. Meanwhile, the need for psychotherapy will grow as well. For even as biological psychiatry corrects a problem within the brain, patients still need guidance to maximize the benefits of this change.

Concludes Dr. Bunney: "Although Dr. Freud's couch may no longer dominate the field of psychiatry, often the best healer of one human mind remains another insightful, compassionate human mind."

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Seated in front of Dr. George Heninger, the department's associate chair for research, are Dr. Malcolm Bowers, associate chair for clinical affairs, (left) and Dr. William H. Sledge, associate chair for education.



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MY PERSPECTIVE ON CHILD ABUSE

by Dr. Elizabeth Morgan, '71

In the 17 years between entering Yale medical school and facing the widely publicized trials to determine custody for my daughter, I came to recognize a large gap in my medical education: I had learned nothing about any kind of child abuse, physical, sexual or emotional.

Yet sexual abuse alone afflicts 15 percent of American children before the age of 18. Child abuse is a disease that can be treated once it is detected. Untreated, it becomes the precursor of many other illnesses and social problems. The disease may be fatal. Unprotected victims of child abuse may be murdered, may kill themselves or may become killers.

A study of incarcerated delinquent boys undertaken in the late 1970s by Dr. Dorothy Otnow Lewis and colleagues from the Yale Child Study Center showed that the more violent boys had suffered and witnessed extreme abuse within their families. In 1986, Marilyn Feldman, et al., reported in the *Bulletin of the American Academy of Psychiatry Law* that of 15 death row inmates, 13 had suffered filicidal abuse—abuse so severe that it could have been fatal.

A study by Beck and van der Kolk undertaken at the Metropolitan State Hospital in Cambridge, Mass., and reported in the November 1987 issue of the *American Journal of Psychiatry*, revealed that 46 percent of chronically institutionalized and psychotic women had suffered childhood incest but had never been treated for it because their past abuse was not discovered until the study was done. Moreover, these women were more delusional, more difficult to manage and more likely to use drugs than were the other psychotic female patients.

Most physicians do not know these facts about abuse. I certainly did not. But we should. Our ignorance may be dangerous to our patients. Stephanie Ladsen and colleagues undertook a questionnaire study of 127 doctors interested in child sexual abuse. The researchers reported that 40 percent of responding physicians could not locate the hymen in a drawing and 50 percent did not know the physical signs of vaginal penetration in a young girl. Only 10 percent of these physicians said they had been taught in medical school that damage to the hymen was a possible sign of sexual abuse. Such ignorance might be excusable if abuse were rare or treated exclusively by a subspecialty, but it is not.

Child abuse is one of the most common diseases. Its sequelae—which may include becoming an abuser—are present in every specialty of medicine, among patients of all ages, races and classes, and of both sexes. The most common sexual abuser is the father or his replacement in the family. But mothers appear to physically abuse children as commonly as fathers do.

While it seems clear that we as physicians must admit our ignorance about abuse and set about correcting it, this may be obvious to me only because I have learned so much about abuse in the past five years. This article will try to describe something of what I have learned.

Most physicians refuse to admit the extent to which child abuse exists among the professional classes, and many physicians deny that abuse exists at all. For instance, during my 25-month stay in a Washington, D.C., jail for civil contempt, many of my fellow inmates told me about their abuse-filled childhoods. The jail administrators and the chaplains all openly acknowledged what the research shows, which is that most criminals and almost all violent ones were severely abused as children. Such research notwithstanding, it makes sense that a child who suffers violence would often become violent. But when I mentioned this to the assistant director of medicine at the jail, the physician replied, "They weren't abused. It's a lie. All criminals lie." His ignorance of the problem was especially distressing because he was a young, well-educated man and a good doctor who otherwise cared about his patients.

Ignorant, we cannot see the signs and symptoms of child abuse that surround us. Incest is committed far more often than it is revealed. Why? Because of a legacy of secrecy and shame that is perhaps as old as humanity itself. In the Old Testament, Tamara is raped by her brother, but when she reveals it she is told to keep silent. Hence, when U.S. Sen. Paula Hawkins spoke publicly about her incest, she broke a millennia-old taboo.

Incest, and the inevitable damage that attends it, appear frequently as a theme in modern literature, too. Mystery writer Agatha Christie's first novel, written at the age of 18, was about incest. Perhaps not coincidentally, she spent her life writing about the evil that lurks behind a normal facade. Novelist William Faulkner also wrote about sexual abuse, and *The Color Purple* begins with a scene of pre-pubertal rape. The heiress to the Johnson & Johnson fortune, after writing about her incest, had the company award grants to study domestic violence.

A published poem called "First Time" was sent to me when I was in jail, its author, a college acquaintance who has made poetry her career. The poem described her oral sodomy at age five by a baby sitter. When we were together as undergraduates, I had known that she was suffering. She was so visibly unhappy and unable to confide in others. When she wrote to me 25 years later, I was not surprised, because by then I knew what kinds of trauma could cause that look of inner pain in people who had the family and money and success that ordinarily should let them be happy.

In medical school too the sequelae of abuse were apparent, if only I had known what I was seeing. One night in the medical school dining room a fellow student began to talk of his day in the emergency room. Laughing, he described doing a very painful, prolonged, intentionally rough manual pelvic examination on a 12-year-old girl. Still laughing, he described the child's screams of pain and the nurses' futile attempts to stop him. Finished with his recital, he hurried back to the emergency room, leaving the rest of us looking at each other, horrified.

Once one understands the pathology of child abuse, his conduct is not inexplicable. A child who is raped by a laughing adult, or who witnesses such an attack, will learn that causing sexual pain is funny. But in medical school I was not aware of this. My fellow students and I neither



Dr. Elizabeth Morgan with her husband, the Hon. Paul Michel, at their wedding reception.

confronted the man at the table nor reported his conduct, although it was abnormal and dangerous. Did our silence make us co-abusers?

Disturbing Lessons

Twenty-two years later in the D.C. jail, I saw an inmate pinned on the floor of the cell block by two women who were beginning to rape her. They were laughing while she struggled to get free. A knot of other women stood laughing at the victim who screamed to them for help. I knew all of these women well, and all had been abused in childhood. To them, laughter was the normal response to another person's helplessness, degradation and pain.

By now I knew enough about abuse to intervene at once. My angry shout of "Stop that! It is a terrible thing to do!" ended the rape. The crowd vanished, embarrassed. Confronting abuse does not always stop it, but not confronting it surely permits it to continue. Why had I and my classmates been silent in medical school? We did not know that as physicians it was always our duty to challenge abuse. Otherwise, the disease can become the norm.

Looking back, my hearing the description of an ugly pelvic examination was not my only brush with abuse sequelae in medical school. Besides this, I had a classmate who was beautiful, clever, hard-working and well liked. She appeared happy and often smiled. The first time she tried to kill herself

Alumna Profile: Dr. Elizabeth Morgan, '71

In August 1987, as she entered a Washington, D.C. jail, a successful career in plastic surgery came to an abrupt halt for Dr. Elizabeth Morgan. A District of Columbia judge had ordered her incarcerated until she complied with his order to allow Dr. Eric Foretich, her ex-husband, unsupervised visits with their daughter Hilary. Alleging that Dr. Foretich had sexually abused the child from the time that she was 2 1/2 years old—a charge that he denies—Dr. Morgan had hidden Hilary away.

By September 1989, amid growing national attention to her case, Dr. Morgan's fortunes began to change. She was released from jail after 25 months; a bill passed by the U.S. Congress and signed by President George Bush limited jail time to 12 months for contempt in child custody cases. Three months later, in December, she married her fiance of three years, the Hon. Paul Michel, a federal appeals court judge.

In February 1990, after 31 months in hiding, Hilary, now age 7, was located by her father in New Zealand. She had been living there with her maternal grandparents, both retired psychologists, after an odyssey that had taken them from the United States to western Canada, Scotland and England. Now the long and costly legal battle between Dr. Morgan and her former husband over custody and visitation rights has resumed, across the South Pacific, where it continues at publication time.

Editor's note: Dr. Morgan submitted this article before proceedings began in New Zealand. She has not commented and cannot comment on the New Zealand case now that proceedings have begun.

with sleeping pills, I was the one who found her and who rode with her in the ambulance to the hospital. I had never seen a face in such pain. Later I offered to help, but she said that she could not tell me why she wanted to die.

Though with psychotherapy she was able to continue in medical school, some of her classmates who cared for her, of whom I was one, finally went to her psychiatrist; we told him we were sure that if more were not done to help her, our friend would die. Her psychiatrist admitted to being baffled and said that although he felt sure something troubled her, she would not tell him what it was, and he could not guess. With a shrug, he said that some people were just going to kill themselves. Tragically, she did, turning a gun on herself in the dormitory.

The pathology of abuse makes her "inexplicable" self-destruction understandable. Although most abuse occurs time and again, a child who has been battered or degraded or raped even once may be filled with despair, guilt and self-loathing. If abuse continues, the horrid memories and emotional pain may become so great that death is a welcome escape.

Some abused, unprotected children may be destined to commit suicide when they are grown, no matter how we try to help them, but my friend's therapist, untrained in abuse, had no chance of helping her. In those days much less was known. His ignorance was understandable, if regrettable, but

Continued on page 25

Yale Researchers Report that Skull Fracture May Signal Child Abuse



Drs. Nancy S. Rosenfield and John M. Leventhal study X-rays of a 2-month-old baby's skull fracture.

Simple skull fractures in children under three may signal child abuse, according to research conducted at the School of Medicine. The research contradicts previous studies done elsewhere which indicated that child abuse is characterized by more serious skull injuries called complicated fractures, says the study's lead author, Dr. John M. Leventhal, '73-'76 HS, associate professor of pediatrics and an attending physician at Yale-New Haven Hospital.

Dr. Leventhal and co-authors Dr. Susan A. Thomas, '87, a resident physician at the University of Connecticut's Family Practice Residency Program in Farmington; Dr. Nancy S. Rosenfield, associate professor of diagnostic radiology and pediatrics at Yale; and Dr. Richard I. Markowitz, deputy radiologist-in-chief at Children's Hospital of Philadelphia, presented their findings May 9 at the annual meetings of the American Pediatric Society, the Society for Pediatric Research, and the Ambulatory Pediatric Association (APS/SPR/APA) in Anaheim, Calif. Their paper was part of an APA session on emergency medicine and child abuse.

"The goal of this research is to detect abuse in its early stage so that the abuse doesn't go to the extreme of permanently disabling the child," says Dr. Thomas, who initiated the study for her M.D. thesis.

Dr. Leventhal's interest in diagnosing child abuse springs from his membership on Yale-New Haven Hospital's DART Committee. The acronym stands for Detection, Assessment, Referral and Treatment and reflects the hospital's commitment to protect abused children. States require health professionals to report suspected cases of child abuse. A 1989 survey by the National Committee for Prevention of Child Abuse found 2.4 million reports of child abuse and neglect were recorded by state child welfare agencies, including at least 1,237 child-abuse related deaths.

But diagnosing physical abuse is complex. The most common symptoms are soft tissue injuries, bruises, welts,

burns and strap marks, which are hard to detect once healed. "Children less than three can't say how they were hurt," says Dr. Leventhal.

"We know that certain kinds of fractures—rib fractures for example—are almost always associated with child abuse," he adds. Femoral, or thigh, fractures, in children less than one year old usually signal abuse.

To find out more about skull injuries in child abuse, the Yale researchers pored over the medical records and X-rays of every child under three diagnosed with a skull fracture at Yale-New Haven Hospital in a five-year period. The doctors identified abused children from the records. In most cases, the attending physician had suspected abuse; occasionally, the parent confessed.

From the records, the researchers concluded that 28 percent of the 94 skull fractures were caused by abuse; 60 percent were from accidents; and 12 percent were of unknown origin. Nearly all of the accident cases, 95 percent, were due to falls, and more than half from a fall higher than four feet.

The researchers detected complicated skull fractures among 42 percent of the abuse cases and 25 percent of the accident cases. Complicated skull fractures are characterized by a depression in the skull, more than one break, or a widened break. Simple linear fractures have a single break and the pieces of broken bone stay in place. Complicated fractures are sometimes fatal and usually indicate a more serious blow and sometimes affect the brain tissue; linear fractures usually heal without complications.

Of the abused children with skull fractures, 58 percent had simple, liner fractures, the same kind of skull injuries found in accidents. In seven of the 11 abuse cases with a complicated skull fracture, the children had no history of a fall or were described as having a minor fall. Eight of the 14 children whose complicated fractures were associated with an accident had fallen from a height of more than four feet.

A mismatch between an adult's story of how a child was injured and the severity of the injury often arouses a clinician's suspicion about possibile abuse, says Dr. Leventhal. In one case, a mother said that her child's leg

fracture occurred while the two played. But a doctor realized the injury was too serious to be caused by normal play; the mother later admitted abusing the child.

Dr. Leventhal says their research shows that physicians who see skull fractures in young children should think about the possibility of child abuse. If a seriously abused child is not correctly diagnosed and protected, there's a one in three chance that child will have another serious injury, he says.

The Yale researchers plan to continue their study at other Connecticut hospitals to see if similar injuries appear in



Dr. Susan A. Thomas: M.D. thesis initiates study.

suburban and rural hospitals, where abuse might be less carefully considered than in an urban hospital like Yale-New Haven Hospital.

childhood abuse is still too rarely considered as the precursor disease when a patient is suicidal. There are too few physicians who know how to treat the adult or child whose abuse or memories of it are driving them to suicide.

Looking back, the sequelae of abuse were evident even in my field of surgery, which one would think would be removed from child abuse. In my residency I treated a young woman with facial scars from self-mutilation. A wealthy, educated woman, she sat smiling in her private hospital room on the morning that we arrived to remove the sutures in our surgical revisions of her scars. We left her still smiling. By that afternoon our patient had clawed at her face until all the incisions were torn open.

Why? For me the answer came 10 years later when I treated another patient who had scars from self-mutilation and who wanted them surgically improved. I knew from her and from a relative that this woman had suffered prolonged sexual abuse by her step-father with the knowledge and connivance of her mother. When my patient came to the office to have the sutures of her scar revisions removed she said, "It hasn't been an easy week. I'm thinking of when my step-father raped me. It makes me hate myself," and with a strange smile she tore open the incisions with her nails.

I do not know what emotion made these women smile when they hurt themselves, but perhaps it was because their abusers smiled when they hurt them. Certainly the women did not smile from happiness.

We also must be aware as physicians that our patients may not trust us enough to tell us about their childhood abuse. They may sense that we know too little and may fear that we will respond to their disclosures with discomfort, disbelief, even anger.

A woman whom I know was repeatedly physically abused by her wealthy, educated alcoholic mother, herself a former abused child. One day, after the mother had fractured her daughter's cheekbone with a blow, the child told her father what had happened; her mother denied it, claiming that the child had had an accident. The father chose to believe his wife. If an abused child's own parent can't believe her when she asks for help, why should the child or the adult who survived abuse expect better from a doctor?

A Plea for Reform

Many organizations that deal with abused children, including the National Center for the Prosecution of Child Abuse and the American Bar Association, are lobbying for laws that require abuse training for judges whose duties involve protecting children. My experience has taught me that these reforms are desperately needed.

Moreover, the studies show that many, perhaps most, abused children will not be protected. Yet at times even I want to push away this awful truth. I do not like to remember the suffering of my fellow inmates, many of them reliving every day on the cell block memories of abuse that none of us, who were not abused, can imagine. I would like to deny all of this, except no longer ignorant, I cannot.

Little as we like facing the tragedy of child abuse, avoiding it is far worse for us and our patients. Medicine should insist that all doctors be educated about this problem. Medical schools should teach their students the signs and symptoms and ways to diagnose abuse and the treatment that the abused child and the adult survivor of abuse need. The drug addict, the pregnant and promiscuous teenager, the anorexic, the suicide, the bulemic and the child abuser all are likely to be survivors of abuse or present victims of it; both their past abuse and the pathology it caused call for treatment.

We should insist that our fellow physicians who diagnose a child's report of abuse as false produce long-term follow-up studies of each child to show that the physicians are right and the child wrong. We should also insist that our courts not deny children treatment for abuse. The experts, the abuse survivors and the former molesters whom I know agree that neither an abused child nor the child's abuser can begin to heal until the abuse has stopped.

My experience and that of many other parents and abuse experts suggest that family court judges, ignorant of abuse, often deny abused children and their abusers the medical standard of care to which they are entitled and for which the health professions are held accountable. It is not inconceivable that the same judge who denies a child standard abuse treatment could find in another case that a physician committed malpractice for not providing the same treatment. This is absurd.

Medical/mental health experts trained in abuse and not judges, whether trained or not, should set the standard of care. Some simple changes in the law when children report abuse would be of great help. For instance, a judge should enter orders that provide at least the standard of care for abuse; that standard of care should be based on the testimony of professionals trained in abuse.

If a child discloses abuse to a neutral professional, abuse should be the tentative diagnosis until an expert medical/mental health evaluation rules it out. If one substitutes "breast lump" or "broken leg" for "abuse," it is clear that such laws would merely permit the standard treatment by experts for an illness which, if untreated, may be fatal.

This is not too much to ask. If such laws are passed, and well they may be, medicine will be called upon to produce the trained and clinically experienced experts whom the courts need to properly treat our abused children. If such a law were signed tomorrow, the abuse-trained physicians would be far too few.

It is time there were more.

 \mathbf{YM}

GALLERY

"Ship of Fools" by Sebastian Brant (1458-1520)



Yale Medical Historical Library

Legend has it that in the Middle Ages, the segregation of the insane was effected by sending them to sea on an aimless voyage—the vehicle for this journey was the "ship of fools" which was depicted in both art and literature. The isolation of the ship, the process of the excursion, and the cleansing attributes of the water were seen, at least symbolically, as a panacea for the sufferings of the mentally ill. The actuality of this practice, however, has been debated by historians. Sebastian Brant, a legal scholar and humanist, originally published his satirical poem "Ship of Fools" in Basel in 1494 during the dawn of printing with movable type. Brant's illustrated poem was produced in many editions, and was translated from the original German into Latin, French, Low German, Dutch and English. The woodcuts were the first portraying the insane on nautical vessels, and thereafter the image was to be repeated for centuries. The actual maker or makers of

the illustrations is in question; Brant may have been the draftsman, but it has been suggested that five or more artisans were involved with the woodcuts, which would not have been unusual.

The allegorical poem deals with the whole of human weakness manifested as folly, corruption, vice and sin. While the universal themes comprised by the work were drawn from the classics and the Old Testament, Brant also incorporated contemporary events and characters, which insured the poem's wide popularity.

The Yale Medical Historical Library has two facsimiles of different editions of "Ship of Fools," one in the original German (1494), the other in Middle English (1509). The Beinecke Rare Book and Manuscript Library has several editions, the earliest printed in Augsburg in 1495.

Janice Braun, Yale Medical Historical Library

RESIDENCY PLACEMENTS 1990

CALIFORNIA

Cedars-Sinai Medical Center, Los Angeles

Joanna Girard, medicine* preliminary

Kaiser Permanente Medical Center, Santa Clara

David Mai, medicine preliminary

St. Mary's Medical Center, Long Beach

Trung Nguyen, medicine preliminary

Stanford Affiliated Hospitals, Palo Alto

Susan Anderson, internal medicine

Joseph Jiang, internal medicine

Robert Wu, otolaryngology

University of California Los Angeles Medical Center

Joanna Girard, neurology

Laurence Greenbaum, pediatrics

University of California San Diego Medical Center

Adrienne Bennett, internal medicine

Kristin Hepler, otolaryngology

University of California San Francisco

Tamara Brenner, anesthesiology

Edward Cooper, medicine preliminary, neurology

Joseph Merrill, primary care

Mark Miller, ophthalmology

Jack Parent, medicine preliminary, neurology

Daniel Stryer, internal medicine

Sanjoy Sundaresan, neurosurgery

Dora-Linda Wang, psychiatry

CONNECTICUT

Bridgeport Hospital

Mark Laser, obstetrics and gynecology

Paul Skyers, medicine/pediatrics

Danbury Hospital

Samuel Wang, medicine preliminary, diagnostic radiology

Hospital of St. Raphael, New Haven

Joseph Melamed, medicine preliminary

Mark Miller, transitional

Ralph Sanchez, medicine preliminary

University of Connecticut, Farmington

Kathleen Kline, psychiatry

Yale-New Haven Hospital

Nancy Angoff, internal medicine

Peter Crino, medicine preliminary

Janet Geiger, pediatrics

Steven Kolenik, medicine preliminary

Susanna Lee, medicine preliminary

Trung Nguyen, ophthalmology

Chander Samy, medicine preliminary

Ralph Sanchez, ophthalmology

Susie Sharpe, internal medicine

Yale Postdoctoral Fellowship, Cell Biology

Daniel Cher

Richard Gellman

Randi Hutter

Stephen Knight

Cynthia Owens

Jullie Pan

Jane Rasmussen

DISTRICT OF COLUMBIA

George Washington University Hospital

Victoria Barber, surgery preliminary

Georgetown University Hospital

Gary DiLisio, surgery preliminary, otolaryngology

FLORIDA

University of Miami/Jackson Memorial Hospital

Roberto Soto, nuclear medicine

ILLINOIS

University of Chicago Hospitals

Michael Brown, anesthesiology

James Stein, internal medicine

IOWA

University of Iowa Hospital, Iowa City

Leila Mankarious, otolaryngology

MARYLAND

Francis Scott Key Medical Center, Baltimore

Keith Vom Eigen, primary care

Johns Hopkins Hospital, Baltimore

Craig Basson, internal medicine

Hyung Lim, internal medicine

Julia Schillinger, pediatrics

Manuel Utset, pathology

University of Maryland Hospitals, Baltimore

Tamara Brenner, medicine preliminary

MASSACHUSETTS

Berkshire Medical Center, Pittsfield

Michael Siegel, medicine preliminary

Beth Israel Hospital, Boston

Ira Meisels, internal medicine

Boston City Hospital

Benjamin Rogall, medicine preliminary

Brigham and Women's Hospital, Boston

Jonathan Foster, obstetrics and gynecology

Laurie Nessralla, anestliesiology

Children's Hospital, Boston

Peter Ho, pediatrics

Thomas Silva, pediatrics

Framingham Union Hospital

Roy Dorman, transitional

Massachusetts Eye and Ear Infirmary, Boston

Chander Samy, ophthalmology Scott Smith, ophthalmology

* Placements denoted as "medicine" are for one year; those marked as "internal medicine" are three-year assignments.

YALE MEDICINE Summer 1990

Massachusetts General Hospital, Boston

Roy Dorman, diagnostic radiology Mittie Kelleher, internal medicine Andrew Schulick, general surgery

New England Deaconess, Boston

Laurie Nessralla, medicine preliminary

MICHIGAN

Butterworth Hospital, Grand Rapids

Michael Brown, transitional

University of Michigan Hospitals, Ann Arbor

Alan Hilibrand, *orthopedics* Catherine Lewis, *general surgery*

MISSOURI

Barnes Hospital, St. Louis

Thomas Christopher, *internal medicine* Christopher Hussussian, *general surgery*

NEW HAMPSHIRE

Dartmouth-Hitchcock Medical Center, Hanover

Siu-Long Yao, internal medicine

NEW JERSEY

UMDNJ-Robert W. Johnson Medical School, Piscataway

Valerie Asher, surgery preliminary Henry Paulson, medicine preliminary

NEW YORK

Highland Hospital, Rochester

Carolyn Wolf-Gould, *family practice* Christopher Wolf-Gould, *family practice*

Long Island Jewish Medical Center, New Hyde Park

Ronald Ennis, medicine preliminary

Manhattan Eye, Ear and Throat Hospital, New York City

David Mai, ophthalmology

The New York Hospital, New York City

Amy Berkman, *pediatrics* Roy Sauberman, *internal medicine* Beverly Stoute, *psychiatry*

New York University Medical Center, New York City

Erika Newton, emergency medicine

Presbyterian Hospital, New York City

David Beenhouwer, internal medicine

Gabriel Ramirez, medicine preliminary, diagnostic radiology

Vinita Sehgal, internal medicine

Marc Warman, physical medicine and rehabilitation

St. Vincent's Hospital, New York City

Ann Arthur, transitional

Wilson Hospital, Division of United Health Services,

Johnson City

Robert Spencer, transitional

Winthrop-University Hospital, Mineola

Marc Warman, medicine preliminary

NORTH CAROLINA

Duke University Medical Center, Durham

Russ Carstens, *internal medicine* Robin Hornung, *pediatrics* Joseph Melamed, *diagnostic radiology*

North Carolina Memorial Hospital, Chapel Hill

Douglas Freedman, *orthopedics* Jennifer Friedland, *pediatrics*

OHIO

Case Western Reserve University, Cleveland

Ann Arthur, ophthalmology

OREGON

Oregon Health Sciences University, Portland

Bennet Wang, internal medicine

PENNSYLVANIA

Children's Hospital, Philadelphia

Kimberly West, pediatrics

Hospital of the University of Pennsylvania, Philadelphia

Peter Crino, *neurology* Tracy Nelson, *obstetrics and gynecology*

Henry Paulson, neurology

Neil Solomon, *internal medicine* William Tierney, *internal medicine*

Edward Wang, orthopedics

Thomas Jefferson University Hospital, Philadelphia

Ian Timms, general surgery

University Health Center-Pittsburgh

Mark Dettelbach, surgery preliminary, otolaryngology Michael Leit, orthopedics

TEXAS

Baylor College of Medicine, Houston

Angelo Gousse, *surgery preliminary*, *urology* John Tompkins, *surgery preliminary*, *neurosurgery*

Baylor University Medical Center, Dallas

Scott Smith, medicine preliminary

University of Texas Medical School, Houston

James Armstrong, general surgery

University of Texas Southwest Medical School, Dallas

Brad Ratcliff, neurosurgery

Robin Sprung, diagnostic radiology

WASHINGTON

University of Washington Affiliated Hospitals, Seattle

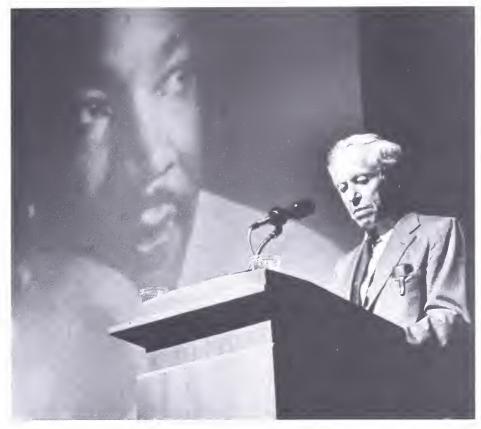
Colin Grissom, internal medicine
Constance Lehman, diagnostic radiology
Toshiko Magnus, internal medicine
Jennifer Mark, family practice
Guy McKhann, neurosurgery
Michael Morse, internal medicine
Marko Yakovlevitch, internal medicine

WISCONSIN

University of Wisconsin Hospital/Clinics, Madison

Benjamin Rogall, diagnostic radiology

SCOPE



Dean Leon E. Rosenberg reflects on the life of Dr. Martin Luther King Jr.

Martin Luther King Jr. Commemorated at YSM

The School of Medicine observed Martin Luther King Jr. Day on Jan. 15. "Closing the Education Gap" served as the theme for the afternoon's events, planned by a committee headed by Dr. Robert H. Gifford, associate dean for education and student affairs. At a 2 p.m. symposium, featured speakers and their topics included:

- Dr. James P. Comer, the Maurice Falk Professor in the Child Study Center and Psychiatry and author of Maggie's American Dream, "The Elementary and Secondary Challenge"
- Dr. Ezra E.H. Griffith, associate professor of psychiatry and of African and Afro-American studies and director of the Connecticut Mental Health Center, "Open Letter to Black Medical Students"

 Dr. Forrester A. Lee, assistant professor of medicine (cardiology), "The Minority Student Takes a Look at Yale—Is Yale Competitive?"

New Haven Mayor-elect John C. Daniels was the keynote speaker at a convocation which followed at 4 p.m., and George D. Arnold, manager of employee relations at Bendix Corp. in Towson, Md., presented dramatized excerpts from Dr. King's speeches. The convocation also featured musical selections by the Yale Gospel Choir and Pierre Gault, a flutist who is a Yale music student.

(For more photos of the Martin Luther King Day event, see page 44.)

Computer Service Offers Hypertension Advice

Thanks to the work of two School of Medicine scientists, physicians can turn to a personal computer network to learn about the latest treatments for high blood pressure.

Computer expert Perry L. Miller, M.D., Ph.D., associate professor of anesthesiology, and high blood pressure specialist Henry R. Black, M.D., professor of medicine, have created HT-Advisor, the first nationwide interactive computer network to help doctors treat hypertension. As part of the American Medical Association's AMA/Net electronic information system, HT-Advisor has been available to more than 38,000 physician subscribers since January 1990.

"With better treatments and improved medications coming out all the time, it's difficult for physicians to keep up with the latest developments" regarding high blood pressure, points out Dr. Black, director of the Yale Preventive Cardiology Program.

Dr. Miller adds that researching background information about high blood pressure is made even more time consuming when practitioners seek out details about treating difficult cases, such as patients with a chronic condition in addition to hypertension, who are using several medications, or who may require more than one drug to control their high blood pressure symptoms. Dr. Miller says that in contrast to poring through journals, "using HT-Advisor is much more flexible and interactive."

Dr. Black adds that "we can update the text of our computer program as soon as new knowledge becomes available. Sometimes by the time a journal article comes out, new developments have made much of the information obsolete."

Dr. Black explains that HT-Advisor has been tested using more than 800 cases, including his own patients and those of other physicians at Yale, and hypothetical patients created by different physicians to test the system's response to cases or management plans that are unusual.

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New Study to Identify Coronary-prone Behavior

Although for years heart attack has been associated with high blood pressure, high cholesterol, smoking and lack of exercise, these risk factors account for only about half of heart attacks. What causes the others remains a mystery. Now School of Medicine scientists are trying to determine whether a person's behavior can change the likelihood of having a recurrent heart attack.

"Research in the '70s suggested that people who are at risk for heart attacks had the Type A, workaholic personality," says Lynda H. Powell, Ph.D., assistant professor of epidemiology, who co-directs the study with Adrian M. Ostfeld, M.D., the Anna M.R. Lauder Professor of Epidemiology and Public Health. Research in the '80s suggests that not all Type A behaviors are coronary-prone. Adds Dr. Powell, "Ambition and hard work may be less related to coronary disease than easily aroused irritabilities and impatience."

Drs. Powell and Ostfeld, along with Lawrence S. Cohen, M.D., the Ebenezer K. Hunt Professor of Medicine, will explore the possibility that two or more coronary-prone behaviors combine to increase risk of recurrent heart attacks.

Yale Study Sheds Light on Heart Attack Death Rates

A study by Dr. Nicholas H. Fiebach, assistant professor of medicine, and two YSM colleagues may have solved the mystery of why women, who on average live longer than men, also have a higher death rate from acute myocardial infarction after they are hospitalized. Dr. Fiebach studied 1,122 heart attack patients, 332 women and 790 men, aged 30 to 74 years old, who had been admitted to Yale-New Haven Hospital between 1978 and 1982. After three years, the women had a cumulative mortality rate of 29 percent, as opposed to 23 percent for the men.

Dr. Ficbach and his team discovered that the women had their heart attacks at an older mean age, 63, than the men, at age 58, but that the women also were more likely to have diabetes mellitus, hypertension or previous congestive heart failure. When these differences were taken into account, mortality rates among women were not significantly

higher than among men.

The paper was published in the Feb. 23 edition of the *Journal of the American Medical Association*. Catherine M. Viscoli, M.Phil., associate in research, and Dr. Ralph l. Horwitz, professor of medicine and epidemiology, were co-authors.

Spinal Cord Drug Study Gains Global Attention

Results of a National Acute Spinal Cord Injury Study, announced March 30 at the National Institute of Neurological Disorders and Stroke (NINDS) in Bethesda, Md., generated headlines around the world. The study represents 12 years of research by more than 100 physicians and scientists directed by Michael B. Bracken, Ph.D., professor of epidemiology.

The team found that patients treated with the drug methylprednisolone within eight hours of spinal cord injury recover more motor and sensory function than do patients receiving a different drug, naloxone, or patients treated with a placebo. The beneficial effects of methylprednisolone, a commonly used steroid, continue for at least six months and appear to extend to injuries of all degrees of severity.

"Our study is the first to demonstrate positive results from treatment in acute spinal cord injury, and points out the importance of early treatment," Dr. Bracken notes. The research involved a randomized trial of 487 patients with acute spinal cord injury treated in 10 collaborating centers in the United States.

"We think that the permanent paralysis that occurs after a spinal injury is due to disintegration of the spinal cord in the hours after the injury rather than at the time of the injury itself," he says. In a spinal injury, a series of chemical events destroys the cord in the hours following injury.

"If physicians can intervene early and stop that progression of events, then they can preserve the cord structure and bring about better recovery," Dr. Bracken says.

Dr. Bracken and his colleagues point out that this national study could not have been conducted without previous biomedical research involving animals which helped the Yale researchers to determine the most effective dosage levels in humans and to learn that methylprednisolone was more effective

than naloxone. The NINDS funded this multi-center study.

Dr. Bracken, who holds M.P.H.,
M.Phil. and Ph.D. degrees from Yale,
directed the research program. Working
with him William F. Collins Jr., M.D.,
the Harvey and Kate Cushing Professor
of Surgery (Neurosurgery) and
chairman of the department of surgery;
Mary Jo Shepard, M.P.H., project
coordinator; and Sandra Alfano, a
pharmacist at Yale-New Haven
Hospital. Co-investigators were Joseph
M. Piepmeier, M.D., associate professor
of surgery (neurosurgery), and
Theodore R. Holford, Ph.D., professor
of public health (biostatistics).

Researchers Develop Test For Cancer-related Protein

Researchers at the School of Medicine have developed two relatively simple but powerful tests that detect minute levels of a protein—parathyroid hormone-related protein, or PTHRP—which is secreted in some cancer patients. The tests may eventually help make an earlier diagnosis in these patients and may also prove useful in the study of osteoporosis.

William J. Burtis, M.D., Ph.D., assistant professor of medicine, along with Andrew F. Stewart, M.D., associate professor of medicine, and Professor Arthur E. Broadus, M.D., Ph.D., and colleagues describe their research in the April 19 issue of the *New England Journal of Medicine*.

Previously, a Stewart/Broadus team at the Veterans Administration Medical Center in West Haven and the School of Medicine, along with colleagues in San Francisco and Australia, had isolated and identified PTHRP from cancer patients. Subsequent studies revealed that the protein removes calcium from the skeleton.

But until this year, scientists could not measure the protein, found at levels of one part per billion in the blood. Dr. Burtis and his colleagues perfected two tests using antibodies taken from the blood of rabbits inoculated with segments of PTHRP. Each test, immunoradiometric assay (IRMA) and radioimmunoassay (RIA), measures a different part of the protein, which circulates in the body in two segments.

MR Techniques Yield Diabetes Knowledge

Using sophisticated nuclear magnetic resonance (NMR) techniques, Yale biomedical scientists have taken a major step toward understanding the basic mechanism of non-insulin dependent diabetes. The team, led by Professors Gerald I. Shulman and Douglas L. Rothman of the department of medicine and Professor Robert G. Shulman of molecular biophysics and biochemistry, reported its findings in the Jan. 25 issue of the *New England Journal of Medicine*.

"NMR has given us the ability to measure concentrations of glycogen accurately enough to fill in gaps in our knowledge about how the human body handles glucose," Dr. Robert Shulman says.

The Yale team made two significant findings that increase knowledge about diabetes. First, the scientists found that under conditions which simulate those after a meal, approximately 80 percent of glucose is stored as glycogen in the muscle. This was true in both healthy and diabetic adults.

Second, the researchers found that while this pathway was dominant for both diabetic and normal subjects, a significant difference was measured in the rate that glycogen is made. Diabetics made glycogen only half as fast as nondiabetics.

Five diabetic adults and five nondiabetics participated in the experiments, designed to measure rates of glucose infusion and of glycogen synthesis. Now that the researchers have identified the main pathway for glucose storage, and where to look for disturbances in the pathway in diabetics, they plan to localize more specifically the defect that causes diabetes.

In addition to Dr. Gerald Shulman, members of the research team include: Douglas L. Rothman, Ph.D., assistant professor of medicine; Thomas Jue, Ph.D., associate professor of biological chemistry at the University of California-Davis; Peter Stein, M.D., associate research scientist in medicine (endocrinology), Yale; Ralph A. DeFronzo, M.D., chief of the diabetes division at the University of Texas Health Science Center at San Antonio; and Robert G. Shulman, Ph.D., professor of molecular biophysics and biochemistry, Yale.



Linda Seigneur, designer in biomedical communications, won a first-place award in New Orleans at the 16th annual Health Sciences Communications Association's Media Festival for the above poster design.

Depression Associated With Teen Pregnancy

Children of black teen-aged mothers are more likely to become teen-aged parents themselves if they are female, depressed, were reared outside of a grandmother's home and if their mother was depressed, reports a School of Medicine researcher.

The information can be used to identify adolescents at risk for schoolage parenthood, says the director of the research, Sarah McCue Horwitz, Ph.D., assistant professor of public health. Dr. Horwitz presented her findings May 9 at the annual meetings of the American Pediatric Society, the Society for Pediatric Research, and the Ambulatory Pediatric Association (APS/SPR/APA) in Anaheim, Calif. Study coauthors are Lorraine V. Klerman, Dr.P.H., professor of public health; James F. Jekel, M.D., M.P.H., the C.-E.A. Winslow Professor of Public Health; and H. Sung Kuo, M.D., a Yale public health doctoral candidate.

Researchers sought out the oldest child of 121 black women who were enrolled from September 1967 through June 1969 in the Yale Young Mothers Program, an early comprehensive care program for school-age mothers. Dr. Horwitz and her colleagues located and interviewed 111 of the adolescent children who had been born to women participating in the program. The researchers drew up statistical profiles of these offspring and their mothers from interviews, medical and educational records.

The research is part of a project sponsored by the William T. Grant Foundation examining the long-term physical, social, emotional and educational impact of adolescent pregnancy on young mothers and their children.

Eating Sugar Boosts Children's Adrenaline

Consuming sugar can boost children's adrenaline level several hours afterward, perhaps leading to jitteriness and crankiness, concludes a School of Medicine study.

Yale pediatricians discovered a 10-fold increase in adrenaline levels in the blood of children given simple sugar orally and then monitored for five hours. The researchers presented their findings May 9 at the joint annual meetings of the American Pediatric Society, the Society for Pediatric Research, and the Ambulatory Pediatric Association (APS/SPR/APA) in Anaheim, Calif.

Scientists have had difficulty substantiating what many parents have always suspected: that giving children too many sugary foods affects their behavior, say the principal authors of the study, Drs. Timothy M. Jones, and William V. Tamborlane. Dr. Tamborlane directs the pediatric endocrinology division and is professor of pediatrics, and Dr. Jones is a visiting research scientist from Perth, Australia, who is working in pediatric endocrinology at the School of Medicine.

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Foundation Supports Postgraduate Program

The New Haven Foundation awarded the department of orthopaedics and rehabilitation a grant for a program that helps Yale-New Haven Hospital residents and Yale medical students refine their research techniques. The \$28,500 grant supported the department's Postgraduate Seminar and Disputations, which annually offers residents and medical students the opportunity to present their current research in an open forum.

The program has an impact on the New Haven community by enhancing the quality of service to handicapped individuals, particularly disadvantaged persons in hospital clinics and emergency rooms. The department treats 80 percent of low-income, New Haven area residents who have musculoskeletal diseases and injuries.

The seminar, held on May 18 and 19 in the School of Medicine, taught residents methods to implement, collect and evaluate information and how to approach unresolved questions. Clinical and visiting faculty critiqued the presenters. The process is designed to increase the chances of the material getting published or presented at a national meeting.

New Test Developed To Detect Lyme Disease

Scientists at Yale and at the Harvard School of Public Health have developed a highly sensitive test to directly detect the organism that causes Lyme disease.

According to David H. Persing, M.D., Ph.D., in the School of Medicine's department of laboratory medicine and a second-year laboratory medicine resident at Yale-New Haven Hospital, the new test, still in the experimental stage, applies a powerful new molecular biology technique to identify the tick-borne spirochete Borrelia Burgdorferi, which causes Lyme disease. In developing and evaluating the new test, the researchers used a new technique called the polymerase chain reaction to detect signature sequences of DNA in the disease-causing organism.

Dr. Persing reported this work in the March issue of *Journal of Clinical Microbiology*. His co-authors and

research collaborators include: Sam R. Telford III, M.S., and Andrew Spielman, Sc.D., both in Harvard's department of tropical public health, and Stephen W. Barthold, D.V.M., Ph.D., associate professor of comparative medicine at Yale.

The test may one day be generally available for physicians and veterinarians to test ticks and ascertain if the insects are infected. While tests currently in use work only on live ticks, many of the insects brought in for testing have been killed. The new DNA sequencing method offers the advantage of working on dead ticks as well as live insects.

The test is now being used on an experimental basis on human samples as part of a clinical research program in collaboration with Dr. Stephen E. Malawista, professor of medicine, and Dr. Daniel W. Rahn, associate professor of medicine (rheumatology); and on ticks in collaboration with Dr. Eugene D. Shapiro, assistant professor of pediatrics and epidemiology.



The Rev. Edward Dobihal has retired as director of religious ministries at Yale-New Haven Hospital. He began the department 25 years ago.

Falls by Elders Targeted By Yale Gerontologist

Dr. Mary E. Tinetti, assistant professor of medicine, is participating in a national study of ways to prevent falls, a leading cause of death and disability among older people.

The National Institute on Aging and the National Center for Nursing Research have awarded \$2.9 million to programs in eight states, including \$202,000 for the first year of the Yale

project. The clinical trials are called "FICSIT" for Frailty and Injuries: Cooperative Studies of Intervention Techniques.

"We're trying to get away from the notion that injuries such as hip fractures are inevitable in old people and to work toward that idea that these falls and injuries are predictable and preventable," says Dr. Tinetti.

Dr. Tinetti will compare the effects of usual health care, unusual health care plus social visits, and usual health care with a fall reduction strategy in 420 patients over age 70 for one year. Researchers included the social visits category to determine whether there are health benefits in such contacts as visiting with loved ones.

Medical, EPH Students Offer AIDS Education

During the last two years, students from the medical school and the department of epidemiology and public health have taught more than 2,000 New Haven public high school students about the dangers of AIDS and how to prevent the disease. Second-year medical students May Chen and Marlene Corujo co-chair the Yale chapter of Students Teaching AIDS to Students (STATS).

The STATS project was initiated in 1988 by student members of the American Medical Students
Association, based in Reston, Va. The Yale chapter has about 50 students from the School of Medicine and its department of epidemiology and public health.

Medical students help in a week of AIDS education activities targeted at high school students, explains Ms. Chen. On Monday, two medical students administer a questionnaire about AIDS in a high school classroom and engage the teenagers in a discussion about HIV infection. During the week, the high school students see a film about AIDS, meet a person with AIDS or who is HIV positive and hear a health professional speak about the disease.

The medical students return on Friday to answer questions or lead group discussions. Friday's sessions may include role-playing games. "High school students are very inquisitive and experimental," says Ms. Corujo. "We're teaching them abstinence, as well as teaching them how they can protect themselves."

Researchers Gain Grants To Study Mental Illness

Now that physicians have determined that some schizophrenic patients do indeed improve, Yale psychiatry professor Dr. John S. Strauss and colleagues have begun a study to identify what helps people with schizophrenia make progress. Dr. Strauss and Robert H. Roth, Ph.D., professor of psychiatry and pharmacology, were among 11 researchers nationally to receive \$100,000 Established Investigator grants from the National Alliance for Research on Schizophrenia and Depression (NARSAD). NARSAD also awarded grants to five other Yale researchers.

Dr. Strauss is examining four groups totaling 155 adults, who have suffered from schizophrenia, manic depressive disorders or schizo-affective disorder. One group comprises patients with a history of schizophrenia who have been treated with clozapine, a new antipsychotic medication. Leaders of the consumer movement in mental illness will comprise the second group of subjects. The third cohort includes former psychiatric hospital patients whose progress Yale researchers have studied for two years. The fourth group includes former patients at the Columbia Area Mental Health Center in South Carolina.

Researchers will interview subjects to rate their status, methods of coping and treatment effectiveness. They will collect diagnostic, demographic and psychiatric history data.

Dr. Roth's study will elaborate his ongoing research using Single Photon Emission Computed Tomography, or SPECT. He will use the brain imaging technology with monkeys to monitor the turnover of dopamine, a neurotransmitter involved in the generation and transmission of nerve impulses. Dopamine transmission is thought to be abnormal in schizophrenia and other neurological disorders, most notably Parkinson's disease.

NARSAD also awarded \$30,000
Young Investigator grants to three Yale postdoctoral fellows: Drs. James L. Kennedy, who is studying the genetics of schizophrenia; Christopher J. McDougle, who is observing serotonin functioning in depression; and Flora Vaccarino, who is identifying the mechanisms of psychiatric disorders and the side effects of anti-psychotic

drugs. Dr. McDougle also was awarded the 1990 American Psychiatric Association's Lilly Psychiatric Research Fellowship, a \$35,000 award supported by Eli Lilly and Co., for his work on alternative medication strategies for obsessive compulsive disorder.

Two other Yale researchers received \$30,000 second-year grants from NARSAD: Ronald S. Duman, Ph.D., assistant professor in psychiatry, and Catherine Sananes, Ph.D., postdoctoral associate in psychiatry.

NARSAD, a private foundation based in Great Neck, N.Y., is a leading private funding source in the field of mental illness research.



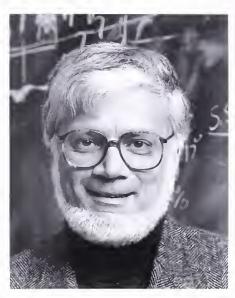
The invitation for the June 7 dedication of the Harvey Cushing/John Hay Whitney Medical Library was designed by Wendolyn B. Hill, artist in the department of biomedical communications. For news about the library, see the Development Report, page 43.



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Elected to the National Academy of Sciences: (from left) Drs. William Knox Chandler, Patricia Goldman-Rakic and Thomas A. Steitz.

Three Faculty Elected To National Academy

Three School of Medicine professors were among five Yale faculty members elected to the National Academy of Sciences April 24. A total of 60 scientists were elected by the peers to the academy, including William Knox Chandler, M.D., professor of cellular and molecular physiology; Patricia Goldman-Rakic, Ph.D., professor of neuroscience; and Thomas A. Steitz, Ph.D., professor of molecular biophysics and biochemistry.

Dr. Chandler is a leading authority on the excitation-contraction coupling in skeletal muscle. After a nerve stimulates a muscle, an action potential, or electrical wave, travels along the external surface of each muscle fiber. Dr. Chandler studies how the action potential activates the inside of a muscle fiber to contract.

Before joining the Yale faculty in 1966, Dr. Chandler was a staff associate at the laboratory of biophysics at the National Institute of Neurological Diseases and Blindness, and served postdoctoral fellowships at the department of chemistry at Brown University and at the physiological laboratory at the University of Cambridge in England.

He is a member of the Biophysical Society, the Physiological Society, the Society of General Physiologists and the American Association for the Advancement of Science. An author of some 40 research papers, he has served as an editorial board member of the Journal of General Physiology, the

Journal of Physiology, and Physiological Reviews.

Dr. Goldman-Rakic joined the School of Medicine faculty in 1979 as professor of neuroscience and was director of graduate studies from 1981 to 1987. Before coming to Yale, she was chief of the section of developmental neurobiology at the National Institute of Mental Health (NIMH).

Her research centers on neurobiology and development of the cerebral cortex and its role in cognition and memory. Dr. Goldman-Rakic directs a center grant on basic neuroscience research relevant to schizophrenia. She has served on several scientific advisory boards, including those of the Heredity Disease Foundation and the NIMH.

Dr. Goldman-Rakic is president of the Society for Neuroscience and a fellow of the American Anatomical Association, the International Brain Research Organization and the American Association for the Advancement of Science. She has served on the editorial boards of Brain Research, Developmental Brain Research, the Journal of Comparative Neurology, Experimental Neurology, the Journal of Neuroscience, Trends in Neuroscience and Science, among others. This year, Dr. Goldman-Rakic received the Fyssen Foundation Prize in Neuroscience in Paris.

Dr. Steitz uses X-ray crystallography to determine the three-dimensional molecular structure of proteins and nucleic acids. He recently obtained the first close-up pictures of the genetic code early in the process of being translated into the basic components of life.

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The work was done with transfer RNA and showed how the L-shaped molecule fits onto the undulating surface of an enzyme, thus enabling its identity to be read. The discovery may lead to understanding how the code is deciphered and how genes are translated into proteins.

Dr. Steitz joined the Yale faculty in 1970 and received the Pfizer Award in Enzyme Chemistry in 1980. He was a Fairchild Scholar at California Institute of Technology in 1984 through 1985.

Welch Leaves Medical Center Inc.

G. Harold Welch Jr., president of Yale-New Haven Medical Center Inc. since 1979, has resigned, effective June 1990, to pursue other interests. Before joining Medical Center Inc., he served on the Yale-New Haven Hospital board of trustees and chaired that board from 1974 to 1977.

Yale University President Benno C. Schmidt Jr. commended Mr. Welch for his contributions to the medical center. "Harry Welch has been an important and valuable resource to the medical center, and I am grateful for his many contributions," the president said.

Medical school Dean Leon E. Rosenberg echoed the praise: "The medical center, including the medical and nursing schools and the hospital, have been nobly served by Harry

Welch's dedication, commitment and integrity. He has given essential support to a variety of projects here, and many of his efforts have been rewarded."

Yale-New Haven Medical Center Inc., a coordinating mechanism for the institutions which comprise the medical center, has assisted in property acquisition and management, liaison with community and government officials and agencies, facility development and special projects. Reassignment of these responsibilities is being reviewed.

During Mr. Welch's tenure, the medical center has experienced considerable growth. Capital construction projects have included the medical school's Yale Physicians Building, Yale Psychiatric Institute, the Yale Eye Center, the library addition and expansion, and the Center for Molecular Medicine, now under construction.

In addition, the hospital built an inpatient facility in 1982, and is planning a major facility renewal program to renovate the Memorial Unit and add a new building designated as the children's hospital at YNHH.

Mr. Welch also participated in planning the Air Rights Parking Garage, and most recently in planning a new School of Nursing building and another parking garage.

Faculty Named Leading Specialists

Several faculty members at the School of Medicine were named "Outstanding Specialists in the U.S." in the October and November issues of Town and Country magazine. The physicians, in alphabetical order, are: Dr. Stephen Ariyan, professor of surgery; Dr. G. Peter Beardsley, associate professor of pediatrics and pharmacology; Dr. James L. Boyer, professor of medicine; Dr. Irwin M. Braverman, professor of dermatology; Dr. Lawrence S. Cohen, Ebenezer K. Hunt Professor of Medicine; Dr. Alan H. DeCherney, John Slade Ely Professor of Obstetrics and Gynecology; Dr. Thomas P. Duffy, professor of medicine; Dr. Richard L. Edelson, professor of dermatology; Dr. John A. Hardin, professor of medicine; Dr. John P. Hayslett, professor of medicine; Dr. John C. Hobbins, professor of obstetrics and gynecology; Dr. Bernard Lytton, Donald Guthrie Professor of Surgery; Dr. Richard A.

Matthay, professor of medicine; Dr. Frederick Naftolin, professor of obstetrics and gynecology; Dr. Clarence T. Sasaki, Charles W. Ohse Professor of Surgery; Dr. Peter E. Schwartz, professor of obstetrics and gynecology; Dr. Thomas J. Walsh, clinical professor of ophthalmology and neurology, and Dr. Robert M. Weiss, professor of surgery.

Grants Help Research Optic Nerve Damage

The University has received two grants to support the work of Dr. Joseph Caprioli, associate professor of ophthalmology and visual science. The first is a \$230,000 grant from the Robert Leet and Clara Guthrie Patterson Trust to support Dr, Caprioli's work on clinical measurements of optic nerve damage in human glaucoma, and the second, a basic research grant from the National Eye Institute for \$308,000 to support related research.

Dr. Caprioli has developed a new approach to making measurements of the structural damage to the optic nerve caused by glaucoma. He uses computerized video images of the optic nerve head which are specially reconstructed to develop information about the surface topography of the optic nerve and surrounding retina. Accurate measurements of subtle abnormalities of these structures will facilitate an early diagnosis, in many instances before patients lose vision from this potentially blinding disease.

Dr. Caprioli's research team includes: Dr. Joseph M. Miller, postdoctoral research fellow and resident in ophthalmology; Douglas Hoffman, computer programmer and data analyst; Pamela Ossorio, ophthalmic photographer; and Maureen Roche, medical technologist.

In November 1989, **Dr. Joseph Caprioli**, associate professor of ophthalmology and visual science, was awarded the Jules Francois Prize at a ceremony in Brussels. The international award, given every three years, recognizes outstanding contributions in eye research by an ophthalmologist under the age of 40.

Dr. Harold O. Conn, professor of medicine, received one of two \$25,000 awards granted this year by the American Gastroenterological Association. Dr. Conn received the Hugh R. Butt Award in May for his studies performing randomized clinical trials on various aspects of liver disease: the award also recognizes his more than 300 publications in the field. The awards are made possible by the Miles and Shirley Fiterman Foundation.

Dr. William W.L. Glenn, the Charles W. Ohse Professor Emeritus of Surgery, has been honored with an endowed lectureship in his name established by the Council on Cardiovascular Surgery of the American Heart Association. The first lecture was delivered at the annual scientific session of the Association in New Orleans in November.

Dr. Peter I. Jatlow, professor and chairman of laboratory medicine and professor of psychiatry, has been appointed a member of the National Board's FLEX Test Material Development Subcommittee. The FLEX program provides a high quality, nationally standardized examination that physician licensing boards use to test candidates for licensure.

David A. McCormick, Ph.D., assistant professor of neuroanatomy, received a Pattison Award for Biomedical Research for his work on studies of human hippocampus tissue and its role in epilepsy and other mental disorders. The award was announced in January by Peter E. Pattison, chairman of the New York-based Institute for Child Development Research.

Dr. Leon E. Rosenberg, dean of the School of Medicine, addressed members of the Yale Club of Houston on March 8. He outlined the recent course of the medical school and described current educational, research and patient care projects during a dinner meeting held at the Petroleum Club. His host was Dr. Walter J. Burdette, president of the Yale Club of Houston, who was a member of the medical school Class of 1942. A cardiovascular surgeon, Dr. Burdette was the Harvey Cushing postdoctoral fellow of surgery from 1943 to 1944, and was a member of the house staff from 1944 to 1946.

ALUMNI NEWS



Dr. Russell B. Scobie

Dr. Russell B. Scobie, '29, was honored in Newburgh, N.Y., as "Citizen of the Year," for his work with the Newburgh Kingston Fluoridation Study, which dealt with fluoridation and the reduction of tooth decay. He was presented with a letter from President George Bush and a plaque from Congressman Hamilton Fish. A resolution was entered into the Congressional Record citing Dr. Scobie's service to mankind. Dr. Scobie has been in private pediatric practice in Newburgh since 1938.

Dr. Samuel D. Kushlan, '35, '35-'37 HS, former associate chief of medicine at Yale-New Haven Hospital, is the namesake of the newly formed Kushlan Firm Luncheon at Yale. The Kushlan Firm teaching service in the Memorial Unit honors Dr. Kushlan, who taught and supported the house staff for more than 50 years. The monthly meeting offers Yale physicians, residents, house staff and students on the Kushlan Firm an opportunity to present case studies for discussion in an open forum.

Dr. Philip B. Chase, '43, after 15 years as director of student health services at Tufts University, has semi-retired in Maine.

Dr. Thomas J. Whelan Jr., '46, director of the University of Hawaii Integrated Transitional and Surgical Residency Programs, received the Ke

Kauka Po'okela Award from the Queen's Medical Center in Honolulu. The biannual award recognizes physicians whose professionalism and spirit exemplify excellence in health care. Dr. Whelan maintains a private practice in vascular surgery.

Cecil G. Sheps, '47 M.P.H., of Chapel Hill, N.C., was awarded the 1989 Distinguished Service Award of the Association of Yale Alumni in Public Health.

Dr. Jerome H. Shapiro, '48, professor and chairman of radiology at Boston University School of Medicine and director of radiology at Boston City and University Hospitals, has been named president of the American College of Radiology for the 1990-1991 term.



Dr. Marilyn M.S. Kritchman

Dr. Marilyn M.S. Kritchman, '50, was elected president of the New York State Society of Anesthesiologists. Dr. Kritchman is director of residency education and associate professor in the department of anesthesiology at New York University School of Medicine. She also serves as associate chairman for the scientific council of the Medical Society of the State of New York and president of the Association of Veterans Administration Anesthesiologists.

Dr. Jocelyn S. Malkin, '51, '52-'55 '56-'58 HS, has a full-time practice in adult and child psychiatry and psychoanalysis in Maryland, and is director of the Baltimore-Washington Institute for Psychoanalysis. She also teaches residents and child fellows at Georgetown University department of psychiatry and chairs the Committee on Child and Adolescent Analysis of the American Psychoanalytic Association.

Dr. Jose Felix Patino, '52, chairman of the Centro Medico de los Andes, Fundacion Santa Fe de Bogata. Colombia, presided at the 33rd World Congress of Surgery held in September 1989, in Toronto. Dr. Patino is president of the International Society of Surgery and gave the keynote address at the Jubilee Congress of the Polish Surgical Association, commemorating 200 years of academic surgery in Poland and 100 years of the Polish Surgical Association.

Dr. Nicholas A. Halasz, '54, is professor of surgery, head of the division of anatomy and director of the renal transplantation program at the University of California, San Diego School of Medicine. He has completed a four-year term as director of the American Board of Surgery and has received the 1989 Chancellor's Award for Teaching Excellence and the Kaiser Award for teaching in the second year.

Kathleen H. Howe, '56 M.P.H., lecturer in public health, was one of five recipients of the Yale Medal for outstanding service to the University. The award, the highest honor given by the Association of Yale Alumni, was presented on April 21 by President Benno C. Schmidt Jr. For years, Mrs. Howe was chairman of the epidemology and public health department's alumni fund and an



Dr. Samuel D. Kushlan

active Yale Alumni Fund board member. Ms. Howe also was honored by the Connecticut Public Health Association with both the David Russell Lyman Memorial Award and the Ira V. Hiscock Award.

Dr. William M. Narva, '56, rear admiral in the U.S. Navy Medical Corps and attending physician to the U.S. Congress, was made an honorary member of the American Academy of Dermatology in December. Dr. Aaron B. Lerner, professor of dermatology at Yale, also was honored as a member.

Dr. Jack D. Barchas, '60, was appointed in January as associate dean for neurosciences at the University of California, Los Angeles, School of Medicine.

Dr. Ormond V. Brody, '60, retired in January 1988 due to illness. He pursues his interests in piano and religious studies.

Gyla E. Brooks, '60 M.P.H., has worked on the Navajo-Cornell Project in Arizona and Alaska and was a field nurse in the Arctic. She taught at both the Cornell School of Nursing and Frances Payne Bolton School at Case Western Reserve University and volunteers with the Red Cross, Stroke Club and Geriatric Center in Beaver, Penn.

Dr. Thomas Lau, '60, has been appointed by the state of Florida to serve as consulting pathologist for the North Central Florida State clinical laboratories. He also has been elected president of the Yale Club of Gainesville.

Dr. Herbert Y. Meltzer, '63, received the Arthur P. Noyes Prize for research in schizophrenia awarded by the seven Pennsylvania schools of medicine. Dr. Meltzer is the Douglas D. Bond Professor of Psychiatry and professor of pharmacology at Case Western Reserve University Medical School.

Dr. John L. Albrigo, '70-'74 HS, is medical staff president of the National Hospital for Orthopaedics and Rehabilitation in Arlington, Va., after serving as chairman of orthopaedic surgery for three years. He is a past-president of the Washington, D.C., Orthopaedic Society.

Dr. Stephen P. Peters, '71, associate professor of medicine, division of pulmonary medicine and critical care, at Jefferson Medical College in Philadelphia, has received a national American Lung Association Career Investigator Award. The award carries a \$35,000 gift to support Dr. Peters' research on the pulmonary macrophage.



Dr. Stephen P. Peters

Dr. H. Steven Moffic, '71, was appointed professor of psychiatry at the Medical College of Wisconsin, where he also serves as director of development for the department. He is working to improve systems of providing mental health treatment and is helping develop a sports psychiatry clinic.

Dr. Paul A. Vignola, '71, '71-'74 HS, has been director of the cardio–vascular laboratory at the Miami Heart Institute since June 1989.

Dr. Fred Ellinger, '72-'74 HS, is professor and head of the department of pathology at the Faculty of Medicine of Marilia in Brazil. In 1987, he served as president of the Brazilian division of the International Academy of Pathology and president of the Association of Pathologists of the State of Sao Paulo.

Dr. A.L.C. Pottash, '74, was appointed clinical professor of psychiatry at the New York University School of Medicine and was elected a fellow in the American Psychiatric Association. He also is executive medical director of seven psychiatric hospitals in New York, New Jersey and Florida, and the author or co-author of more than 150

research publications in the areas of pharmacology, biological psychiatry and drug abuse.

Nils R. Richardson, '74 M.P.H., is president of North Texas Easter Seal Rehabilitation Center, Inc., in Wichita Falls, which has received the Management Excellence Award from the National Easter Seal Society for the second consecutive year. He also has been elected to the board of the National Association of Rehabilitation Facilities.

Dr. Myrna M. Weissman, '74, chief of clinical-genetic epidemiology, the College of Physicians & Surgeons, Columbia University, received two awards for her research in collaboration with her husband, Dr. Gerald L. Klerman. In 1989, they received the Outstanding Research in Affective Disorders Award from the National Depressive and Manic Depressive Association for research on pharmacologic and psychotherapeutic treatment of depressive illness. This year, they received the research award of the American Suicide Foundation for outstanding contribution to knowledge of suicide. Dr. Klerman, professor and associate chairman of research in the department of psychiatry at the Payne Whitney Psychiatric Clinic at Cornell Medical Center, and Dr. Weissman have recently completed a study, published in the New England Journal of Medicine, demonstrating a strong association between panic disorder and suicide attempts.

Hillary J. Demby, '75 M.P.H., has been named vice president of the Health Finance Group of Kidder, Peabody & Co. in New York City. Previously, Ms. Demby was a health care credit analyst at Standard & Poor's Corp. and a vice president at Bond Investors Guaranty.

Dr. Mary Jane Minkin, '75, associate clinical professor of obstetrics and gynecology at Yale, is the first recipient of the Arnold Markle Award for her many years of medical aid and support to the New Haven Rape Crisis Program.

Dr. Morris C. Finkelstein, '76 Ph.D., is a faculty member in obstetrics and gynecology at Greenwich Hospital in Greenwich, Conn.

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Dr. Richard N.W. Wohns in the Nepal Himalayas.

Dr. Harvey J. Berger, '77, '77-'81 HS, serves as president of the research and development division and executive vice president of Centocor Inc., a biotechnology company in Philadelphia that specializes in monoclonal antibodies.

Dr. Richard N.W. Wohns, '77, a neurosurgeon in Washington state, is pursuing his interest in high-altitude physiology. He has successfully crossed a remote high-altitude pass in the Nepal Himalayas and along with his mentor, Dr. Etsuro Motoyama, plans to undertake a high-altitude neuroscience research expedition in 1992.

Robert W. Buckingham, '78 Dr.P.H., is associate professor of community medicine at City University of New York Medical School and author of *Care of the Dying Child*.

Dr. Jeffrey N. Hausfeld, '78, was appointed director of the Medlantic Sleep Disorder Laboratory at the Washington, D.C., Hospital Center and chairman of the hospital's division of facial plastic reconstructive surgery.

Dr. Steven W. Schick, '78, medical director for Dermacare Medical Group of Costa Mesa, Calif., recently returned from Australia where he studied a new laser technique for treating cosmetic imperfections. The laser mechanism, particularly useful in treating birthmarks, spider veins or broken

capillaries, can selectively pass through some tissues and vaporize others by using a low-powered, argon/dye tunable laser.

Dr. Phyllis C. Leppert, '79 HS, chief of the obstetrics and gynecology department at Rochester General Hospital, recently served as a visiting professor in biochemistry at the Tokyo College of Pharmacy.

Dr. Gary L. Schaer, '79, is associate professor of medicine and director of cardiac catheterization in the section of cardiology at Rush Medical College and Presbyterian-St. Luke's Hospital in Chicago. He previously served on the faculty at Georgetown University Medical Center.

Dr. Irwin J. Halperin, '80 M.P.H., is heading a six-member FDA clinical investigation at the Miami Heart Institute, Miami, Fla., on a new piece of equipment to remove cholesterol from the body. The 24-month study involves high-risk patients, aged 25 to 60, who have elevated cholesterol levels and are not responding to diet and drug therapy. Dr. Halperin also is senior vice president of O.P.T.I.O.N. Care, a home intravenous and nutritional service.

Dr. George B. Holmes Jr., '80, was appointed assistant professor of orthopaedic surgery at Jefferson Medical College at Thomas Jefferson University. He also is a staff member of Thomas Jefferson University Hospital.

Dr. David H. Wohns (formerly Weinberg), '81, served his internal medicine residency at Strong Memorial Hospital in Rochester, N.Y. For two years he was director of the intensive care unit and then a fellow in cardiology at Chapel Hill, N.C. He practices cardiology at Butterworth Hospital in Grand Rapids, Mich.

Dr. William M. Sikow, '82, serves as a member of the division of hematology-oncology at the Miriam Hospital in Providence, R.I., and is assistant professor of medicine at the Brown University Program in Medicine.

Scott A. Murphy, '85 M.P.H., of Mayfield Heights, Ohio, is a manager in Ernst & Young's Great Lakes Health Care Operations Consulting Group.

Dr. Eric P. Suan, '86, is serving a one-year retina/ritreous fellowship at Bascom Palmer Eye Institute in Miami, Fla., after serving as chief resident at Wills Eye Hospital in Philadelphia.

Dr. Aswine K. Bal, '87 M.P.H., '86-'88 HS, is a second-year resident in pediatrics at Beth Israel Hospital in New Jersey and is planning a fellowship in pediatric critical care.

Sara L. Swenson, a second-year medical student, won first place in the Appleton-Lange essay contest held among medical students in the United States and Canada. Her essay, "Divided Loyalties in a Corporate Era," was published in the November Association of American Medical Colleges journal, *Academic Medicine*.



Dr. Steven W. Schick



Cornell Scott, M.P.H. '68, (center) shares a laugh with Matthew F. Lopes Jr., M.P.H. '77, director of the medical school's Health Careers Opportunity Program, and Maxine I. Whitehead, director of minority affairs, as they meet at a Martin Luther King Day reception. Mr. Scott recently was named a 1990 Elm and Ivy Award recipient for his work as executive director of the Hill Health Center.



First-year student Katherine Widnell with Dr. Nicholas P.R. Spinelli, '44, director of alumni affairs, at the latest phonathon, which benefitted student financial aid.

Student Phonathon Nets Record Amount

A record total of more than \$16,000 was reached in the annual student phonathon which took place on April 23 and 24 at the Yale Alumni Fund offices. Members of the medical school classes of 1992 and 1993 served as volunteers who called alumni/ae spanning all age groups. Students contacted alumni who had a record of regular participation but who had not yet contributed this fiscal year, which ends June 1990. The opportunity also allows current student aid recipients to express their thanks to alumni/ae benefactors.

Phonathon participants included: Class of 1992—J.M. Massicotte, Eric J. Rashba, Nathan J. Schmiechen; Class of 1993—Silvia Abularach, Juan Bartolomei, Steve Chang, Joe Choo, Dee Dockery, Brain Ference, Christopher Fey, Michael Kaiser, Elizabeth Le, David Tendler, Tony Vinals, Blair Wardenburg, Katherine Widnell.

Alumni assisting the student group included: Drs. R. Leonard Kemler, '43, chairman, School of Medicine Alumni Fund; Richard Breck, '45, class agent; Nicholas P.R. Spinelli, '44, class agent; Mrs. Mary Meehan and Ms. Gina Moscato, Yale Alumni Fund staff.

NEW BOOKS

Sports Medicine, second edition, edited by Dr. Allan J. Ryan, '43-'45 HS, and Fred L. Allman Jr. Academic Press (San Diego) 1989.

Triumph: Getting Back to Normal When You Have Cancer, by Marion Morra, assistant director of the Yale Comprehensive Cancer Center, and Eve Potts. Avon Books (New York) 1989.

Ackerman's Surgical Pathology, seventh edition, by Dr. Juan Rosai, professor of pathology. C.V. Mosby (St. Louis) 1989.

Mental Health Care For Allied Health and Nursing Professionals, edited by Dr. H. Steven Moffic, '71, with Drs. Pedro Ruiz and George L. Adams. Warren H. Green, Inc. (St. Louis) 1989.

Care of the Dying Child, by Dr. Robert W. Buckingham, '78 Dr.P.H., Continuum Publishers (New York) 1989.

IN MEMORIAM

Donald F. Gibson October 22, 1989	'27 M.D.
Laurence B. Felmus September 12, 1989	'31 M.D.
Harold W. Higgins February 12, 1990	'31 M.D.
James F. Blades August 23, 1989	'34 M.D.
Sawnie R. Gaston May 15, 1989	'35 M.D.
Arthur S. Tucker September 10, 1989	'39 M.D.
Sidney Feyder July 29, 1988	'41 HS
Joseph P. Kriss September 8, 1989	'43 M.D.
David J. Kreis Jr. October 8, 1989	'77 M.D., '81 HS
Nancy Kayne	'86 HS

September 12, 1989

Yale Medicine Summer 1990 39

Harold E. Harrison, M.D.

Dr. Harold Harrison died Oct. 2 in Baltimore, at the age of 81.

Dr. Harrison, professor emeritus at the Johns Hopkins School of Medicine, focused his research on the metabolism of calcium, phosphorus and vitamin D in children. He pioneered, developed and implemented oral rehydration therapy to treat diarrheal diseases in children. His studies, conducted with his wife, Helen C. Harrison, Ph.D., are credited with advancing the treatment of rickets resistant to ordinary vitamin D therapy and of bone disorders related to chronic kidney disease.

Dr. Harrison was a 1931 graduate of the School of Medicine and a member of the Grace-New Haven pediatrics house staff from 1931 to 1935. In 1945, Dr. Harrison became associate professor of pediatrics at Johns Hopkins, and the first full-time chief of a clinical service at Baltimore City Hospitals. Author of more than 150 publications, he was a recipient of the Borden Award of the American Academy of Pediatrics, the American College of Nutrition Award and along with his wife, the Howland Award from the American Pediatric Society.

J. B. Hollinshead, M.D.

Dr. Joseph Hollinshead died in Avon, Conn., on Dec. 9, 1989 at the age of 79.

Dr. Hollinshead graduated from Hamilton College and received an M.D. degree from Yale in 1937. After completing his internship and residency at Hartford Hospital, he served as a medical officer in the U.S. Coast Guard during World War II. Dr. Hollinshead had a private practice of general medicine in West Hartford until his retirement in 1976.

Nathanial Kenigsberg, M.D.

Dr. Nathanial Kenigsberg died Nov. 22 at Bridgeport Hospital (Conn). He was 76.

Dr. Kenigsberg, a native of Brooklyn, N.Y., received B.S. and M.A. degrees from Wesleyan University in 1934 and 1935, respectively, and an M.D. degree from Yale in 1939. He served an internship in the department of surgery at New Haven Hospital from 1939 to 1940 and a residency from 1940 to 1943. In 1943, Dr. Kenigsberg entered the U.S. Army Air Corps and spent the subsequent three years in the European Theatre during World War II. After his chief residency at Beth Israel Hospital in Boston, he was a surgeon at Bridgeport Hospital from 1947 to 1974. He then became medical director of the PSRO of Fairfield County until his retirement in 1979.

He is survived by his wife, Esther; three sons, David, Bernard and Daniel; and two grandsons.

OBITUARIES

Raymond E. Lesser, M.D.

Dr. Raymond E. Lesser died Feb. 17 at Kaiser-Permanente Hospital in San Diego. He was 67.

Dr. Lesser served as a pediatrician at Kaiser-Permanente Hospital since 1971 and was assistant chief of pediatrics for the Kaiser Southern California Board. He also held a faculty post with the University of California at San Diego Medical School.

A native of Athens, Ga., Dr. Lesser graduated from high school at age 16 and was a Phi Beta Kappa graduate of the University of Georgia. He received an M.D. degree in 1945 from an accelerated program at the School of Medicine and served in the U.S. Army during World War II.

He did postgraduate work at Yale and completed training at the Children's Hospital in Detroit before joining the staff at Michael Reese Hospital in Chicago, where he served as chief of pediatrics through the 1950s. He had a private practice in Park Forest, Ill., for 20 years, during which time he also was deputy of health for the area, a member of the Health Council and president of the Poison Control Unit. He worked with the South Suburban Family Services and was chairman of pediatrics at Ingalls Memorial Hospital in Harvey, Ill., and at St. James Hospital in Chicago Heights.

He is survived by his wife, three daughters, Marcia, Joni and Barbara; and four grandchildren.

Arthur J. Present, M.D.

Dr. Arthur J. Present died of respiratory illness on Sept. 22, 1989. He was 84.

Until 1970, Dr. Present had a private radiology practice in Tucson, Ariz. He joined the faculty at the University of Arizona College of Medicine at the age of 65, and became its first professor emeritus in 1987.

Dr. Present founded one of the nation's first breast cancer screening projects in 1975 and founded the first Pima County unit of the American Cancer Society. He also founded the Yale Club of Tucson, in 1947.

A native of Rochester, N.Y., Dr. Present received B.A. and M.D. degrees from Yale in 1927 and 1932, respectively, and in 1937 received a Doctor of Medical Science degree from Columbia University. He served an internship in surgery at Duke University, an internship in medicine at Strong Memorial Hospital at the University of Rochester, and a residency at Columbia Presbyterian Medical Center. He was a lieutenant colonel in the U.S. Army Medical Corps from 1940 to 1946.

Dr. Present was chancellor of the American College of Radiology from 1957 to 1961 and received the association's gold medal. A recipient of the National Award from the American Cancer Society, he was listed in Who's Who in the World and the Dictionary of International Biography of American Men of Medicine.

He is survived by his wife, Barbara. A scholarship fund has been established in Dr. Present's name at the University of Arizona. Donations may be made to the Arthur J. Present Scholarship Fund, c/o Dean's Office, University of Arizona College of Medicine, 1501 N. Campbell Ave., Tucson, AZ 85724.

G. C. Van Galder, M.D.

Gary Clark Van Galder died on Jan. 31 of metastatic bladder cancer in Palm Springs, Calif. He was 53.

Dr. Van Galder received an M.D. degree from Yale in 1963 and served an internship and residency at the University of Oregon Hospital and Clinics. He spent three years as a U.S. Army surgeon in Germany.

He started a practice in Washington state where he spent 10 years and then moved to Palm Springs, Calif., where he was a member of the Palm Springs Medical Group. He later went into practice in Hawaii with Dr. Clarence Hodges.

He is survived by his wife, Michelle; five daughters, Debbie, Susan, Laura, Kristine and Jennifer; a son, Doug; his mother and four brothers.

ALUMNI REPORT

Director's Report

As this column goes to press, the nationwide search for my successor as director is well underway. Several excellent candidates, all Yale medical alumni, have been interviewed and one may have been selected by the time you receive this issue.

The past five years have passed like a moment for me. To those who have not been in New Haven recently. be assured that the intellectual and social environment has never been more alive, the students more content, our faculty and leadership more keen. Our campus explodes with new physical growth which in turn has furthered exciting new scientific research and clinical care. Of course, the cost of such change spells ever greater resource needs for our school and for our students. Developing resource assistance is now a routine, mandatory part of modern administration.

Since one's personal resources as alumni/ae ultimately become fixed, one's ability to donate becomes ever a more creative effort. The help of alumni/ae volunteers in assisting our development personnel to solicit nonmedical alumni/ae and industrial donors is an example of such recent efforts. A cadre of retired physician alumni volunteers are a new phenomenon in the office of alumni affairs. Attempts at increasing communication, whether by magazines or expanded reunions, seem fruitful. Broadening our concept of reunions to include spontaneous mini-reunions on the West Coast, in the South, or in the Midwest in nonreunion years has been successful and should be continued.

Increased communication with students, aided by the presence of mature, alumni/ae volunteers, has been most rewarding for students and graduates alike. Organizing an undergraduate class early in its four years, under the leadership of its elected class officers, may help establish volunteers for future roles in alumni activities. I have been most impressed by the sense of dedication to our school shown by most medical

students, an attitude especially noteworthy since these students find themselves ever more burdened with educational debt. They are a group well worthy of our support. They seem to embody an ethos which, if it endures, should translate into the responsible professional's sense of social obligation to the community.

In 1984 our first alumni directory in decades was published and was lauded by graduates and faculty alike. It is time that we publish an updated directory with improvements such as better cataloguing of sub-specialists. The networking potential alone makes such a directory vital for graduates' professional well-being. Like the similar Yale Law School publication, the directory should be updated every five years, and we are now in the process of doing this.

Ultimately, the health and relevance of the Association of Yale Alumni in Medicine depends upon the input of every member-physician graduate or house officer/ fellow—which implies most importantly that we identify strongly with the Yale University School of Medicine. Your president, Dr. Thomas Kugelman, '60, is eager to hear your suggestions. Cedar Street continues to generate quality research, brilliant students and inspired teaching as in generations past. The challenge to keep our professionals at the forefront of American medicine and public health—the latter, the theme of Reunion 1990—continues to find our alma mater constantly striving for excellence. Our support, however expressed, is important in helping attain these worthy goals.

I have been grateful to have been part of this effort these past five years. With increasing options for volunteer service becoming available to alumni, I hope that my involvement may be a continuing privilege.

Dr. Nicholas P.R. Spinelli, '44 Director of Alumni Affairs



Dr. Arthur C. Crovatto

Arthur Crovatto Named YSM Alumni Director

Dr. Arthur C. Crovatto, '54, '54-'61 HS, a surgeon from York, Pa., has been named to succeed Dr. Nicholas P.R. Spinelli, '44, as director of alumni affairs at the School of Medicine.

Upon graduation from Yale with his M.D. degree in 1954, Dr. Crovatto continued at Grace-New Haven Hospital from 1954 to 1958 as a surgical intern and assistant resident. He served a urology residency at Grace-New Haven as well, from 1958 to 1961. From 1960 to 1961, he was both chief resident and an instructor in urology. Dr. Crovatto left for York Hospital in 1961, where he has practiced at the department of surgery, urology division, for 28 years.

Comments Dean Leon E.
Rosenberg: "With sincere thanks and deepest regards to Dr. Nicholas
Spinelli for his five years of devoted service as director of alumni affairs, I look forward to working with Dr.
Arthur Crovatto, a dedicated alumnus who comes highly recommended for his administrative and interpersonal skills. Dr. Crovatto's leadership will be critical at a time when our medical school relies more than ever on the advice and support of its graduates."

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Association of Yale Alumni in Medicine

Thomas P. Kugelman, M.D. '60, *President*

Muriel D. Wolf, M.D. '59, *Vice President*

Gilbert F. Hogan, M.D. '57, Secretary

Dwight F. Miller, M.D. '56, Past President

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Bennett L. Blitzer, M.D. '73 Sharon L. Bonney, M.D. '76 Harold D. Bornstein, M.D. '53 Jay H. Hoofnagle, M.D. '70 Michael Kashgarian, M.D. '58, HS '63 Forrester A. Lee, M.D. '79, HS '81 Nicholas M. Passarelli, M.D. '59 Dorothea R. Peck, M.D. '43 William A. Whalen Jr., M.D. '53, HS '59

Representatives to the Association of Yale Alumni

Fredric K. Cantor, M.D. '62 Lycurgus M. Davey, M.D. '43 Martin E. Gordon, M.D. '46 Marie-Louise Johnson, M.D. '56 Kristaps J. Keggi, M.D. '59 Gioacchino S. Parrella, M.D. '41

R. Leonard Kemler, M.D. '43 *Chairman Medical School Alumni Fund*

DEVELOPMENT REPORT

Major Gift Announced For Medical Library

In the midst of final preparations for the June 7 dedication of the Harvey Cushing/John Hay Whitney Medical Library, the School of Medicine received word from Mrs. Belle Morse that she wished to donate \$1 million to complete core funding for the project. Mrs. Morse is the widow of Carl A. Morse, a 1925 graduate of Yale's Sheffield Scientific School and a loyal and generous friend of the University. Yale will recognize this gift through the naming of the Morse Periodical Room in the library. It will serve as a memorial to Mr. Morse, who died Nov. 14, 1989, and their son, Stephen I. Morse '51, M.D., Ph.D.

Carl A. Morse (1905-1989) was born in Minsk, Russia, and raised in New Haven. He graduated in engineering from Yale's Sheffield Scientific School in 1925, and began his career as assistant construction superintendent for Bing & Bing in New York City. In the 1950s he joined Diesel Corporation, and in 1959 founded Carl A. Morse, Inc. In 1965 the two companies merged to form Morse/Diesel, Inc., a building design and construction firm which he headed until 1987. Among the major projects built by Mr. Morse are such New York landmarks as the Philip Morris Building, the Marriott Hotel in Times Square, and the Pan Am Building. His company also constructed the Sears Tower in Chicago.

Mr. Morse received the Yale Medal—the University's highest award—in April 1989, in recognition of his long and distinguished service. He was president of the Class of 1925S, and a member of the advisory council for the Yale Fund for Engineering. Among his many gifts to Yale were the Carl A. Morse Endowed Professorship in Engineering, the Carl A. Morse Electrical Engineering Teaching Center, and the Belle and Carl Morse Scholarship Fund. The scholarship fund was established in 1989 to assist disadvantaged or needy Yale students who graduated from New Haven's Hillhouse High School,

which Mr. Morse attended.

Stephen I. Morse, M.D., Ph.D, (1900-1980) was born in New York and graduated from Yale in 1951. He received his M.D. degree from Washington University School of Medicine, and served as intern and resident in medicine at Columbia-Presbyterian Medical Center. He was one of the first to enter the graduate program of the Rockefeller Institute for Medical Research, where he worked in the laboratory of James G. Hirsch and received a Ph.D. in 1960. He remained at Rockefeller through 1968, as assistant professor and later associate professor, and as physician to the Hospital of Rockefeller University.

A Guggenheim Fellow, in 1968 he spent a year working with John H. Humphrey at the National Institute for Medical Research at Mill Hill, London. Upon his return, he was appointed professor and chairman of microbiology and immunology at State University of New York Downstate Medical Center (now the SUNY Health Science Center at Brooklyn), where he remained through the rest of his career.

Dr. Morse's research centered on the study of microbial products and their effects on host responses. He built his department into an outstanding center for research and teaching. As a tribute to his many accomplishments, the Health Science Center at Brooklyn established the Stephen I. Morse Institute for Molecular Biology and Genetics in 1985.

Dean Leon E. Rosenberg commented, "This remarkably generous gift by Belle Morse serves to remind us all that the School is truly an integral part of the larger University, and its tradition is one of which all Yale alumni should be proud. Carl and Stephen Morse, like Harvey Cushing and John Hay Whitney, were undergraduates at Yale, and yet their families have made truly exemplary contributions to make possible the renovation and expansion of the Medical Library. We are truly honored to add the Morse family to the distinguished list of Yale families who have been the library's benefactors."

Union Workers Donate To Yale Program

The Yale-New Haven Occupational Medicine Program has received \$59,000 in two gifts from the Asbestos Workers. The International Association of the Heat and Frost Insulators donated \$50,000, while Local Union No. 33 raised an additional \$9,000 from its 200 members.

Comments William G. Bernard, general president of the Asbestos Workers, "The Yale-New Haven Occupational Medicine Program has become the cornerstone of the occupational health and safety movement in Connecticut.

"Thousands of our members have received invaluable medical treatment through this program at a cost they could afford. Now, it is our turn to give something back to the program." Mr. Bernard, adds that the donations will fund research and teaching activities on occupational diseases associated with the building trade.

Although asbestos has been widely banned, Asbestos Workers members are called on to perform the hazardous task of removing asbestos from buildings, such as schools and hospitals.

The occupational medicine program, part of the medical school's depart—ment of internal medicine, provides a wide range of clinical and related services to area businesses and workers.

"This is the only postgraduate training program in the region to train specialists in occupational medicine," points out Dr. Mark R. Cullen, the program's director and founder and associate professor of medicine and epidemiology. Current research deals with such issues as radon, asbestos, lead and problems of indoor air pollution. During the past decade, more than 150 resident physicians, nurses and medical students received training in occupational medicine.

Dr. Cullen views the Asbestos Workers' donation as a landmark because it is the first open-ended gift to support health problems of the building trades. The union previously has donated funds to support specific research projects.

MARTIN LUTHER KING DAY 1990



Dr. James P. Comer, the Maurice Falk Professor in the Child Study Center and Psychiatry, (left) addresses "The Elementary and Secondary Challenge," along with Dr. Robert H. Gifford, associate dean for education and student affairs.

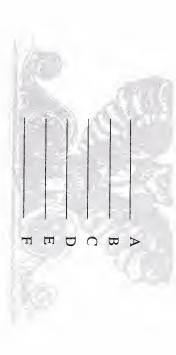


The convocation featured musical selections by the Yale Gospel Choir. Here, fourth-year student Michael Brown sings a solo.



New Haven Mayor John Daniels, pictured with Dean Leon E. Rosenberg, presented the Martin Luther King Day keynote address.

conference listings on description page. Please send additional information on the conferences checked below. Letters correspond with



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CONTINUING MEDICAL EDUCATION AT YALE

Friday

THE SHOULDER IN SPORTS MEDICINE

(A)

Aug. 17, 1990

Director: Peter Jokl, M.D.

Speakers: Christopher Pope, M.D.; Charles Rockwood, M.D.; Russell Warren, M.D.

Will include discussion in latest imaging technology for assessing shoulder skeletal, and soft tissue pathology. Also treatment methods for common shoulder maladies and traumatic injuries associated with athletic activities.

Friday-Sunday Aug. 17-19, 1990

THROMBOSIS, THROMBOEMBOLISM AND THROMBOLYSIS (B)

Director: Michael Ezekowitz, M.D.

For Internists, Neurologists, Cardiologists, Vascular Surgcons, Radiologists and other health care workers faced with thromboembolic disease. Course is designed to provide basic knowledge on the pathogenesis and treatment of various disease processes in which predominant pathology is thrombosis and/or thrombocmbolism. Will provide insight into directions that future research will be clinically oriented.

Thursday-Friday Sept. 27-28, 1990

MOLECULAR NEPHROLOGY: CLINICAL AND RESEARCH **(C)** APPLICATIONS OF THE NEW BIOLOGY

Director: Stephen T. Reeders

Designed to introduce participants to the exponentially growing influence of molecular techniques and its application to nephrology. Important principles and practical limitations of molecular genetics will be covered systematically. Methods will be applied to specific issues in clinical nephrology and renal physiology. The aim will be to study the selection of particular approaches.

Friday-Saturday Oct. 12-13, 1990

VISITING LECTURE SERIES IN OPHTHALMOLOGY

Director: David E. Silverstone, M.D. Speaker: Frederick Jakobiec, M.D.

Advances in the treatment and management of orbital diseases.

Thursday-Friday Nov. 1-2, 1990

UPDATE IN HIGH-RISK PREGNA WITH EMPHASIS ON ULTRASOU

(E)

(D)

Director: Joshua Copel, M.D.

Comprehensive review of treatment of pregnan of ultrasound to diagnose maternal and fetal pro and other health care personnel with the latest r

n the use *ysicians*

Friday-Saturday Nov. 30-Dec. 1, 1990

VISITING LECTURE SERIES IN O

(F)

Director: David E. Silverstone, M.D. Speaker: Marshall Parks, M.D.

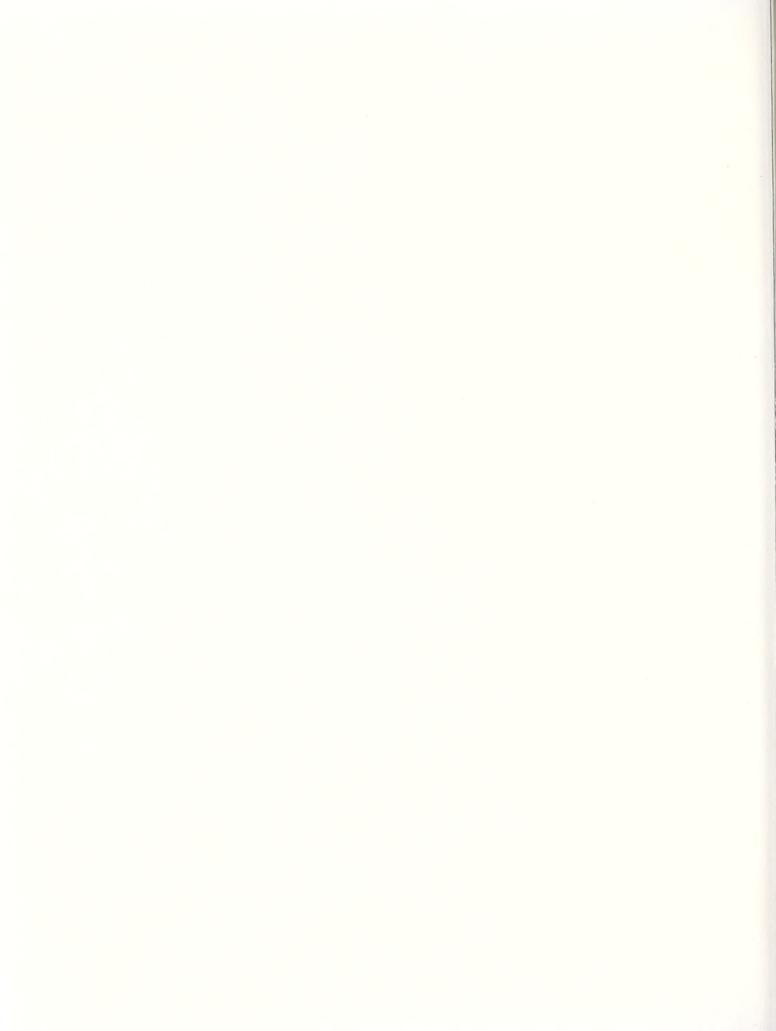
Pediatric ophthalmology update.

CIRCLE THE APPROPRIATE LETTER(S) ON THE ATTACHED POSTCARD TO OBTAIN MORE INFORMATION ON CONFERENCES DISCUSSED IN THIS ISSUE. PLEASE BE SURE TO INCLUDE YOUR NAME AND ADDRESS.

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